Africa 90 (1) 2020: 1–17 doi:10.1017/S0001972019000913

Beyond realism: Africa's medical dreams Introduction

P. Wenzel Geissler and Noémi Tousignant

> The most tragic form of loss isn't the loss of security; it's the loss of the capacity to imagine that things could be different. (Bloch 1986)

> The world has long since dreamt of something of which it needs only to become conscious for it to possess it in reality. (Karl Marx, 1843, letter to Arnold Ruge, cited in Jameson 2005: 281)

Africa has long provided fertile ground for the medical imagination. From the colonial 'civilizing mission' to the ingenuity of post-Ebola 'pandemic bonds', African pathologies and potentials have kindled some of biomedicine's wildest fantasies (while testing the limits of its efficacy, rationality and universality; see, for example, Fanon 1959; Vaughan 1991; Lyons 2002; Hoppe 2003; Lachenal 2017; 2018). Dystopian images of Africa – of tropical miasma, preventable deaths, barren women and orphaned children, wildfire epidemics depopulating the continent and spreading beyond it – have intersected with visions of discovery, salvation, progress, productivity and mastery, but also with aspirations to equality, welfare, self-determination, authenticity, prosperity and rights.

Biomedical fantasy and scripted futures

From the outset, the dream of imperial conquest in Africa was entangled with that of medical conquest, an entanglement that fostered discovery and innovation (e.g. Headrick 2012; Neill 2012). Although primarily directed towards securing and sanitizing enclaves of colonial military, administrative and economic activity, this newly scientific medicine was deployed, at the same time, to perform the potentially further-reaching ideological work of Christian and European order and benevolence (e.g. Comaroff 1993; Conklin 1997; Comaroff and Comaroff 2009). From the 1940s, biomedicine, fuelled by accelerating traffic between bodies, experimentation and technology, was hitched to the bigger ambitions of late-colonial, and then (inter)national, welfare and development (Cooper 2002;

P. Wenzel Geissler teaches social anthropology at the University of Oslo. With Guillaume Lachenal, John Manton, Noémi Tousignant and other scholars and artists, he published *Traces of the Future* (Intellect, 2016). With Ruth Prince, he is currently studying the remains and afterlives of the East African AIDS epidemic, revisiting their book on AIDS in Kenya, *The Land Is Dying* (Berghahn, 2010). Email: p.w.geissler@sai.uio.no

Noémi Tousignant is a lecturer in Science and Technology Studies at UCL and holds a Wellcome Trust University Award. She has published *Edges of Exposure: toxicology and the problem of capacity in postcolonial Senegal* (Duke University Press, 2018). Her current project, about liver cancer in West Africa, explores how progress in the techno-scientific capacity to protect against liver carcinogens has reinforced global health inequalities. Email: n.tousignant@ucl.ac.uk

Tilley 2011; Lachenal 2017). New modes of investment, not only in Africans' bodies but also in their professional mobility, modernity and prosperity, were materialized by expanding the reach of biomedicine – by building clinics and hospitals (Prince, this issue); training and promoting African personnel (Geissler *et al*., this issue); dispensing new medicines, vaccines and insecticides through mass, mobile action (e.g. Vaughan 1991); or nurturing healthy dispositions as a civic virtue (e.g. Hunt 1999).

In Africa, the transformative promises of development were invoked initially to define a reformed colonialism, one willing to invest in the continent's economic and political future at a time of broader post-war moral and political reconstruction (Cooper 2002). At the same time, the focus on a narrow techno-politics of development often served to deflect revolutionary forms of anti-colonial liberation. Development programmes were also pursued to bring about decolonized international linkages (on either side of, as well as across, the East–West Cold War divide; see, for example, Prince, this issue) and national governance, thereby reordering the postcolonial world and Africa's place in it. In the post-independence decades, medicine and health were targets of international programmes of cooperation based on technical assistance and technology transfer (Lachenal 2011). Some of these retraced old metropole–colony routes while seeking to infuse interactions with new ethical, material, professional and political possibility. Others opened onto different pathways of exchange and solidarity connecting Africa to new poles of the Cold War world in a context of humanitarian competition. Liberal visions of technological liberation from obstacles to trade and security (and the need for social reform; see, e.g., Reinhardt 2015; Packard 2016) were complemented and reshaped against the different propositions of 'socialist internationalism' – operating in part through international organizations such as the WHO (Antic *et al*. 2016; Vargha 2018). Medical training and the development of health services were also cornerstones of African state expansion and nation building (e.g. Kusiak 2010).

As the post-war economic boom faltered in the late 1970s, the appropriateness of basing healthcare and development on expensive, imported, technology-based strategies and of aiming for universal public provision was called into question, notably by the newly emerging academic discipline of 'health economics' (e.g. Forget 2004). In some circles, the rethinking of development inspired new kinds of public health dreams, initially directed at the universal provision of at least basic resources for well-being while relying less on aid, technology and expertise (Cueto 2004; Packard 2016). But just as the goal of 'health for all' through 'primary healthcare' (PHC) was proclaimed by the World Health Assembly in the late 1970s, a resolutely *realist* calculus of smarter investments in health gained traction, dismissing even PHC, at least in its 'comprehensive form', as utopian (e.g. Evans *et al*. 1981). The promotion in international health circles of '*selective* primary healthcare', guided by cost-efficacy evaluations (Walsh and Warren 1980), and of economic liberalization through structural adjustment measures in international financial institutions (such as the World Bank, which was becoming increasingly active in healthcare lending and reform) narrowed the scale and scope of public health provision in Africa (Prince 2013). In the 1980s and 1990s, external pressures to reduce the role of the state in Africa combined with deepening economic crisis and an internal 'politics of the belly' (Bayart 1993).

Worsening economic conditions fuelled the nightmare of HIV/AIDS and reversed life expectancy gains in many African countries. Eventually, however, the response to HIV/AIDS broadened the resources and ambitions of the new 'global health' around the turn of the millennium (Whyte 2014); this was partly due to Africans' insistent claims to treatment as a *right* (Robins and Von Lieres 2004), but also due to the epidemic's construction as a state of exception (and a biosecurity threat) calling for a humanitarian intervention (Nguyen 2005; Rottenburg 2009). Much criticized for their failure to (re)build national infrastructures of research, prevention and care – as exposed by the recent Ebola crisis in West Africa – and indeed for weakening what remained of existing health system structures through fragmentation and distortion, major global health players such as the Gates Foundation are backing old and new 'technical fixes' for health in Africa – often accompanied by quasi-utopian marketing, for example regarding the promise of 'mobile' and 'e-health' (Duclos *et al*. 2017). By investing in mobile, often minimalist, devices and techniques such as point-of-care diagnostics, new vaccines and mobile phone applications, they seek to work 'off the grid', autonomously from health systems, to extinguish unknown future epidemics, eradicate pathogens and meet mortality-reduction targets (Redfield 2016; Street 2018; David and Le Dévédec 2019). Continuously trailed by critical social scientists, the global health 'enterprise' nevertheless often outpaces them with surprising innovations – such as the ongoing turn to 'universal health coverage', which ambiguously references seemingly anachronistic 1960s visions of health systems while at the same time ushering in a new kind of marketization of health insurance and care provision (Lagomarsino *et al*. 2012; Prince 2017).

A generation of critical historians and anthropologists of Africa has held up biomedical *dreams* (those of doctors, bureaucrats, academics and businesses) against the *realities* of ongoing scarcity, inequality and violence. Indeed, as they have shown, the gap has remained wide between promises (those of colonial, (inter)national and global health) and actual resources for Africans' survival and advancement, which have consistently been thinly and unevenly spread on the ground (e.g. Feierman 1985; Vaughan 1991; Turshen 1999; Masquelier 2001; Foley 2009; Prince and Marsland 2013). Such promises are also contradicted by persistent social, spatial and racial exclusions in access to capacity and care (as well as to modernity and urbanity; see, e.g., Swanson 1977; Packard 1989; Hecht 2012); and the sometimes coercive impositions of hygiene, hierarchy and purportedly universal values (e.g. Fanon 1959; Lyons 2002). Indeed, in important ways, the gap has widened – and its geography radically changed – with the exponential growth of private, high-end health facilities across Africa offering world-class care to the few, while services to the masses continue to decline (e.g. Harris *et al*. 2011). This scholarship unmasked colonial, international and global health dreams as ideology, or as delusional and fantastic (see also MacPhail 2015). Yet, while exposing the harsh reality of most Africans' lack of access to health services, or even to the basic conditions for protecting and prolonging life, this critical work – somewhat like the health economists' calculating 'realism' that it politically opposes – left little space for dreaming, even for those dreams that African health workers and professionals, sick people and their relatives, have continued to dream: dreams, for example, of decent working conditions, medicine stocks, affordable care or publishable research.

The work of dreaming

Rather than dismiss dreams as disconnected from reality, this special issue instead explores dreaming as 'a practice, a technique' (Gordin *et al*. 2010) for *working on* and *working out* the present. The articles in this collection were presented at the conference 'Dreaming of Health and Science in Africa: Aesthetics, Affects, Poetics and Politics', held at Hinxton Hall (the Wellcome Genome Campus Conference Centre) in June 2015, which tied together and fanned out ideas, collaborations and sources of inspiration around the 'Anthropologies of African Biosciences' collective. Originally based at the London School of Hygiene and Tropical Medicine and later hosted by the University of Cambridge, this collective studied past and present science and medicine in Africa, with a particular interest in ideas, visions and imaginaries that pointed beyond the merely medical towards horizons of political and social transformation.[1]

While this special issue coheres around dreaming-in-action, its contributors emphasize different aspects of the concept, marked by their use of various synonyms. Johanna Crane, for example, alternates between 'imaginary', 'vision' and dream. Although she highlights divergences between these and 'reality', she also examines how 'big' dreams of equal partnership and heroic global health help mask and maintain the minutiae of bureaucratic injustice. Noelle Sullivan instead uses the term 'dream making' to draw attention to the generative function of dreaming, which produces something, if not necessarily exactly what was dreamt of. 'Dreaming' can designate personal aspirations and collective visions, narrow claims and far-fetched imaginaries, concrete aims and marketing spectres. The concept's common denominator is the gap between what exists and what could, should or might be – a gap that is open to diverse political and analytic interpretations, and which generates action. Following Ernst Bloch's concept of 'concrete utopia', dreaming is seen across the contributions as creating potential for contact between what is *here now* – imperfect, unfinished, unfair, insufficient – and what is not (yet) or is no longer effectively or materially present (Bloch 1986).

Our collected focus includes but also extends beyond Bloch's interest in the political, transformative force of dreaming-as-hope, as a way of reaching towards a better future that is immanent or latent, but still unachieved and undecided in the present. Some dreams examined in this issue indeed bring dreamers closer to the possibility, even if uncertain or unlikely, of improved health capacity. For example, the aspiration for better-equipped hospitals and laboratories studied by Noelle Sullivan and Iruka Okeke opens up possibilities for infrastructural expansion and improved access to care and capacity, as well as for greater control over and participation in circuits of knowledge and resources that are already being 'performed' through 'dream plans' and improvisation. In other cases, dreams produce collectives, movement and action, which, although not fulfilling the specific fiction that sustains them, do create change – as in the case of Tanzanian scientists described by Wenzel Geissler *et al*., for whom the failing

[1]The collective existed from 2005 to 2015, and edited collections by its members include Molyneux and Geissler (2008), Geissler and Molyneux (2011), Kelly and Geissler (2011), Geissler *et al.* (2013), Geissler (2013), Geissler and Kelly (2016), Geissler *et al.* (2016) and Geissler and Tousignant (2016).

https://doi.org/10.1017/S0001972019000913 Published online by Cambridge University Press

dream of a crumbling international scientific station has nevertheless created a solid foundation for careers as scientists elsewhere. Some other dreams, however, are forgotten or laughed off; past dreams of collective transformation via cutting-edge Africanized medical science and public healthcare have been closed off in a future that never happened, and which, as Ruth Prince and Geissler *et al*. point out, has apparently become undreamable. Other dreams actively produce failures and contradictions that they are unable to effectively recognize or address, as in the male circumcision campaign described by Nolwazi Mkhwanazi, or through administrative systems underpinned by the dream of equal partnership that instead disable fair and constructive working relations, as exposed by Crane. Thus, dreams can pry open or press shut, conceal or expose, leverage or sink into the distance between the real and what can be envisioned, remembered, hoped for or fantasized (Bloch 1986; Jameson 2004). But regardless of whether dreams are likely to generate hoped-for outcomes – whether they are expected to succeed or to fail, whether or not they are, or are recognized as, 'unrealistic' – they spur action; they are a form of work through which people make the world they live in and the world they live *for*, through which they constitute themselves and trace possible futures.

Taking dreaming as material for ethnographic study, the contributors to this special issue seek to describe the varied and specific ways in which individuals and collectives – Africans, but also their would-be 'partners' and observers, including ethnographers – move and provoke interaction, and even define themselves, between material, affective and imaginative presences. This entails attention to dreams beyond those, often dreamed from outside the continent, that take the form of (grand) narratives, such as those laid out as a chronological sequence in the opening paragraphs of this introduction. The dreams of imperial, international and global health have indeed tended to predict or prescribe solutions for a continent diagnosed or coveted – often from elsewhere – as 'an event that calls for a technical decision' (Mbembe 2017) and for 'salvaging interventions' (Goldstone and Obarrio 2017: 6), passing judgement on how Africa is, or how it should (or cannot) become global and modern. This is not to imply that cosmopolitan biomedical dreams, for example of global disease eradication, have not also been African dreams – shared, reshaped, generated and adopted by African as much as by foreign and expatriate politicians, technocrats, clinicians, scientists and would-be patients. Yet, as 'scripts', they do not tell us everything about how future- (and fiction-)making powers of medical science, technology and care have been defined, invoked, desired, called into question or reinvented in working out lives and livelihoods in Africa, whether by residents or by visitors to the continent. This also means looking in new ways at blueprints, such as the Alma-Ata Declaration or socialist internationalism, seeing them not merely as (un)realistic projects – whether failed or successful – but also as potentially generative of durable affective and political positions and practices.

This special issue opens with an essay accompanying and introducing the 'Local intellectuals' section,[2] the central theme of which is the remembrance of dreams,

[2]The extended annotated transcript is published online at <https://doi.org/10.1017/S0001972019000913>.

and, implicitly, their durability over time, providing renewed impetus for claims, contestation and debate in shifting political-economic contexts. The subsequent articles form the section 'Dreaming histories', which asks how dreams can thread together or split off past from present visions of the future being remembered – or not. In Ruth Prince's contribution, past dreams persist as architectures and place names, coexisting with political amnesia, while elsewhere they may appear as jokes and awkward moments (Geissler *et al*., this issue). In both cases, past futures have become difficult to inhabit or enact *as* dreams in the present. Dreams continue to take effect as movements and gestures that connect dreams of care, community and livelihoods across time and space in Mozambique, as examined by Ramah McKay; or, in the contribution by Tamara Giles-Vernick and Fabienne Hejoaka, they persist as imaginings of both cure and death from hepatitis B infection in Burkina Faso, loosely anchored to histories of access to HIV therapy and radically uncertain prognoses.

'Generative fictions' turn to forms of dreaming that are supported by fictions and fantasies – of a Kenyan nation bound by blood-sharing solidarity, as described by John Harrington, or, as in Alice Desclaux's contribution, of Senegalese victory over an (imagined?) Ebola epidemic, or of victory over HIV via mass circumcision in Swaziland, as described by Nolwazi Mkhwanazi – yet which nevertheless sustain practices and produce effects in the present.

The final section, 'Dream capacity', turns to dream plans – for a Tanzanian hospital, as described by Sullivan, or, in Okeke's contribution, for West African genomic laboratories. Yet dreaming here is not reducible to planning; in these cases, the future is not foreclosed by a plan but is instead held open by it, remaining uncertain or even improbable. Along with Crane's analysis of the bureaucratic 'underbelly' of equal-partnership dreams in Uganda, these are also case studies of how 'African' dreaming can bypass, reorient, critique or accelerate external initiatives to 'build capacity' (see also Geissler and Tousignant 2016).

Across diverse cases, this special issue takes up dreaming as a crucial lever for understanding the emerging present of African healthcare and medical science. This is a present littered with the ruins and debris, as well as some standing edifices, of the big mid-twentieth-century dreams of fast-forwarded development, expansive welfare provision, medical solidarity and health equity, and cutting-edge African(ized) biomedical science. It is a present that is also scarred by several decades of 'practical thinking' (Jameson 2005), when the poverty of budgets (and perhaps also of imagination) was constituted as 'reality', and this status quo was translated by economists into calls to cut back on public spending and heed evidence of cost-efficiency, though perhaps in some cases with their own fantasies about market forces as an inherently efficient mechanism for generating growth and managing the delivery of 'quality' services (Harvey 2005). This is a present, finally, into which the newly immoderate and transparently millennial language of global health possibility – of money, technology, predictions and targets – has irrupted, once again evoking victory over disease, universal access and humanitarian imperatives, albeit with an eerily different ring to such language. Even if denouncing this movement as 'nihilist' ignores the dreams of its busy workers (Lachenal 2015), these new utopianisms do call to mind Ernst Bloch's warning against forms of utopian thinking that fail to recognize the real, material situation (with material 'reality' here not referring to available

resources, but as objective, transformative contradictions in society at a given time (Bloch 1986)).

How are African clinicians, scientists, patients and politicians, but also foreign advisers and partners, moving through and around such remains and reactivations? What distinctly twenty-first-century dreams of global expatriate life (Redfield 2012), but also of political activism and change (Wendland 2010) or of routine regulatory protection (Tousignant 2018), do African health professionals weave into successive policy, technical and economic experts' scripts for novel global health performances? What other forms of global, national and local health do they envisage, or remember, as they are drawn into accelerating but fragmented streams of knowledge and funds? And how are African patients' dreams of life-saving medicines and of caring, affordable hospitals fuelled by the growing availability (to some) and visibility (to all) of well-advertised cutting-edge private diagnostic and treatment facilities (notably for non-communicable or chronic conditions such as cancer)? How, by calling up histories of expanded access to therapy (Giles-Vernick and Hejoaka, this issue) or telling success stories of epidemic containment (Desclaux, this issue), are such dreams disturbing current intersections between persistent scarcity (of funding, equipment and staff) and new hopes (of universal private insurance coverage, for example), hype (e.g. of portable technological solutions) and nightmares (e.g. of Ebola)? In other words, what spaces are opened and contested? What is becoming dreamable within, and especially beyond, this new space of anticipation and amnesia (Lachenal 2013; 2015; Prince, this issue) but perhaps also of remembrance and nostalgia (Lachenal and Mbodj-Pouye 2014; Geissler *et al*., this issue), of recycled fragments of past modes of anticipation (Buck-Morss 2002) and, surely, of illusion (Desclaux, this issue; Mkhwanazi, this issue)?

(Anti-)utopia and the historicity of dreaming

If dreams are meant to transcend what exists, how can they also help us see and grasp the particularities of a located present? One answer is offered by Bloch's conception of reality as an unfinished process, and of 'concrete' utopia as operating within the realm of the 'real possible' in terms of the political potentials of societal contradictions. Thus, Bloch's notion of dreaming does not do away with realism, or, importantly, with materialism. Utopianism that lacks a grounding in concrete material and political-economic realities, according to Bloch, loses its potential for progressive transformation, leading instead to barbarism or fascism. Concrete utopia is also historically situated: it is *of*, while also reaching *beyond*, its time and place of departure; it is, in Bloch's words, 'transcendent without transcendence', or, according to Ruth Levitas, it is located 'within but on the edge of the real' (1990). Thus, dreams are 'never arbitrary' (Gordin *et al*. 2010); they expose historically situated ways of understanding and inhabiting the present.

Dreams are also historical in their *plausibility*. Even highly improbable dreams – say, a self-regulating market, winning a Nobel prize, gender equality, becoming a revolutionary hero, or halting global warming – change over time in how seriously

they are taken and in the extent to which they draw on shared memory, desire, frustration, fear or anticipation. There may be a distinctive postcolonial history of plausible dreaming, arising from both the desire and the difficulty of escaping colonial positionings as subject, subordinate, auxiliary, inferior, peripheral and static. This history arcs, in a familiar story, from intense optimism for decolonization, development and emergence, through an abrupt reversal that relegates such hopes to the fantastical (e.g. Ferguson 1999; Piot 2010), to an uncertain, emergent present to which the future seems to be returning in a particularly volatile, speculative and exclusionary form (De Boeck 2011; Piot 2017; De Jong and Quinn-Valente 2017; Goldstone and Obarrio 2017), or as mere titillating fiction in the form of 'Afrofuturism' and its fantasises of technological-cum-cultural revival through super-cutting-edge science (Kilgore 2014; Kennedy 2018).

Yet this arc also echoes broader trends that follow from a loss of belief and investment in the state as responsible for 'maintaining the world openly and robustly' (Berlant 2011: 168), and perhaps also from a generalization of precarity and deepening social inequalities over the last decades. Many observers have noted the discrediting of the high modern dreams of both liberal and socialist development and welfare as utopian, implying that these are instead dystopian and incompatible with freedom and choice (Jameson 2005). The pursuit of the latter under pure market relations has also been called utopian (e.g. Harvey 2005); however, post-2008, this dream too seems to be losing plausibility (see Thompson and Žižek 2013). Still, dreaming big, together, for each other and as 'society' clearly went out of fashion. According to some, hope was privatized: individualized, deregulated, marketed and consumed (Bauman 2003; Thompson and Žižek 2013). For many, the scope of hope also shrank after the demise of Fordism and developmentalism. As even modest 'fantasies of a good life' have grown 'more phantasmatic' (Berlant 2011: 11), optimism has become 'cruel'.

The turn away from collectivized hope and dreaming, and the rise of anti-utopian injunctions to realism, is particularly striking in the debates about healthcare reform in both high- and low-income settings that emerged in the late 1970s. Alongside the loss of capacity and credibility of states as sources of planning, provision, regulation and redistribution, calls for more rigorous 'evidence-based' judgements of value – while also giving 'consumers' greater individual freedom and responsibility – shifted these debates away from the dream of universal health systems. Across the global North and South, calls arose to contain the spiralling costs of public medical care in the face of constrained fiscal resources. Anti-utopian accusations were levelled not only against social distribution systems, but also against claims of techno-medical progress. The collective health gains from medicine were exposed as a 'mirage' (e.g. McKeown 1976), raising questions about the investment of public authority and resources in experts and technology (Illich 1975) and about the restriction of personal choice, responsibility and autonomy (Harrington 2009). The desire for more rigorous proof of efficacy was bolstered by a search for measures on which to base the economic rationalization (and rationing) of medical interventions (Adams 2016). As mentioned above, this critique of high-cost, high-technology, high-expertise health systems briefly inspired new kinds of utopian thinking about health as being integral to, and resulting from, a 'good society', as exemplified by the WHO's Declaration of Alma-Ata in

1978.[3] By the 1980s, however, the dominant conversation in international health was about how to *prioritize* the allocation of scarce and, for the foreseeable future, inelastic public funds by calculating the cost and impact of afflictions and interventions (see, especially, Jamison and Mosley 1991; World Bank 1993). During the same period, the British National Health Service (NHS), once a herald of Keynesian welfare society, was turned from a utopian project for the protection of societal spaces from market forces into an aspiration for a dynamic 'process' managed by consumer choice (Harrington 2009). By and large, 'being realistic' about healthcare has entailed a search for more and better *evidence* to guide the rationing of public resources and to invigorate private initiative in the 'delivery' and 'consumption' of health services. Across the global North and South, *public* decisions about healthcare were increasingly justifiable only on the basis of evidence of cost-effectiveness (albeit amid fierce debate about the validity of metrics and the quality of data) and/or as freeing up *private* dreams of responsibility, choice and benefit.

Violence and hope beyond absence

The disastrous consequences of giving up on the dream of public, accessible and effective healthcare in Africa and of strong and relevant African public health research (see, e.g., Geissler and Tousignant 2016; Tousignant 2018) are well documented (Pfeiffer and Chapman 2010; Prince and Otieno 2014). A striking example is provided in accounts of the recent Ebola epidemic in West Africa as revealing the catastrophic neglect of public infrastructures (Fauci 2014; Ferme 2014; Farmer 2014). New kinds of dreams and dreaming seem urgently needed in order to redefine the contours of plausibility of the future for African healthcare and medical science – breaking free from the constrictions of realism and realization – and to revitalize medicine as a tool to 'dream up' larger social collectives, in the way in which national health systems and medical science were instrumental for imagining and organizing post-war Britain or – involving the same thinkers – postcolonial Tanzania (Titmuss 1964).

Attention to dreams can also reinvigorate debates on two recurring themes in scholarship on medicine in Africa: dearth and violence. Absences – of resources and access to them, of equality, capacity and certainty – cling to the dreams described in this issue; they inspire but also haunt and undermine them. Our attention to dreaming aims to take a step beyond pointing to 'present absences' and towards examining the specific ways in which, whether through hopes, fictions or nightmarish fantasy, the intrusion or enlistment of what is *not* present (or is only partially present) may enable ways (including passive, ineffective ways) of being and doing in African care and medical science. Dreams break into, or out of, the conditions under which medical care and research are engaged with (e.g. White 1995; Hunt 1999; 2015; Wendland 2012; Geissler *et al.* 2013) – conditions of suffering and violence, of quests to obtain or provide protection and care. What is missing (be it medicine or equality of opportunity or accessible services) or unreachable

[3]See <https://www.who.int/publications/almaata_declaration_en.pdf>, accessed 20 October 2019.

https://doi.org/10.1017/S0001972019000913 Published online by Cambridge University Press

(cordoned off in prosperous spaces of private care, global funding or abroad; e.g. Sullivan 2011; Wendland 2012; Geissler 2013; Prince and Otieno 2014) may, through dreaming, gain a presence in, perturb, give meaning to or make tolerable what *is* there.

While dreaming can be hopeful and expectant and can mobilize protest and reform, it can also justify or mask oppression and stasis or become conservative and 'cruel' (Berlant 2011) when conditions of possibility and plausibility are altered. The unreachability of the dream, the gulf between what does or can materialize under present historical conditions and the imaginable, also bears the potential for violence (Bloch 1986). The violence of biomedicine in Africa has usually been located in the imposition of its epistemologies and strategies – that is, as inherent to biomedicine's ideology of superiority, mastery and control (Fanon 1959; Harding 2011) – or in the withholding of its benefits, of unrealized ideals of capacity and care (Feierman 1985; Packard 1989; Turshen 1999). This special issue moves beyond the description of suffering engendered by these forms of biomedical domination and exclusion. Its articles illuminate how people – by dreaming – work through, on or up the excesses and insufficiencies of biomedical power and materiality.

Yet they also reveal further forms of violence arising from dreaming itself, or from the loss of the capacity to dream of mutual or collective transformation (Prince, this issue; Geissler *et al*., this issue). The turning of promises, plans and aspirations into (*just*) dreams – when they are continuously postponed (e.g. Hecht 2002; Lachenal 2011), trivialized as pipe dreams, turned into fantasies, dissolved into futility (Lachenal 2015) or stoked as fictions – can be painful or anaesthetizing. Sharing dreams can be liberating, but dreaming others' dreams can also carry insidious forms of subjection; be it through colonial medical education or global health partnerships, Africans have so often been told what to dream (and what to make do with), thereby offering entry to 'universal' aspiration but also placing limits on full or cutting-edge participation and brushing aside the possibility of more singularly 'African' ways of dreaming. Dreams can also inhibit, defer and dampen demands for transformative action, for example when fictions of reciprocity and change – such as those mobilized by postcolonial cooperation or promises of transnational partnership (Crane 2013; Crane, this issue; Moyi Okwaro and Geissler 2015) – permit the persistence of unequal working relationships and projects. Hopeful hype and the rhetoric of goalposts (such as Millennium Development Goals or the WHO's '3 by 5' initiative) mask the circular futility and nihilism of the hunt for solutions (Lachenal 2015) or of endless exercises in capacity strengthening (Geissler and Tousignant 2016). The dismissal of dreams *qua* dreams can justify whittling down science and medicine to fit the present tense of urgent priorities and scarce resources.

Still, the dreamt-of, even if impossible (whether acknowledged as such or not), can be galvanizing. Elusive and utopian goals can mobilize claims, criticism and, sometimes, extraordinary attributions of power and resources (e.g. Lachenal 2010; 2017). The unreachable can give shape to demands, as when ordinary Kenyans imagine the possibility of receiving treatments advertised on billboards for private care[4] or when racial hierarchies of expertise are set to expire (Iliffe 1998;

[4]Ruth J. Prince, personal communication.

https://doi.org/10.1017/S0001972019000913 Published online by Cambridge University Press

Hecht 2002). Even fictions can bring about opportunity and relationships, for example when African scientists pretend to have wonderful conditions for research in order to attract or secure transnational collaboration (Fullwiley 2011; Moyi Okwaro and Geissler 2015). Dreams are often of transformation, critical of the present and articulating alternative and imaginative futures towards which expertise, knowledge and care might lead. They can keep people together, sustain subjectivities and constitute biographies in the face of loss, and they can give meaning to relations within and between generational and professional groups, whether through the sharing of hope and memory or by way of ironic detachment (Geissler 2011; Tousignant 2013; 2018; Osseo-Asare 2014; Droney 2014).

An added feature of this special issue is a transcript of two reunions of European and African scientists who worked in Tanzania during 'Africanization', which is included as a 'Local intellectuals' section in association with the article by Geissler *et al*. This transcript provides an opportunity for readers to explore the complexity and contradictions of African medical dreams, as well as dreamers' dialogues and conflicts.[5] The intellectuals in question are a group of medical scientists – including technicians and university professors – who worked together in the 1960s and 1970s during an important moment in their careers as well as in national history and the development of science in Africa, in the once famous research station of Amani in north-eastern Tanzania. The 'Local intellectuals' section offers the annotated and illustrated full transcripts of two reunions of these science workers, one held in Britain (in 2013) the other in Tanzania (2015), during which participants reflected on disappointed and fulfilled dreams, scientific and non-scientific, private and public, individual and collective. Listening to these now elderly people raises many of the issues developed above, and shows how dreams, struggles for their fulfilment and the memory of those dreams and struggles constitute meaningful lives; and how dreams – shared and bequeathed, appropriated and rejected – constitute collective identity and action.

Acknowledgements

The conference 'Dreaming of Medicine and Science in Africa', held at Hinxton Hall in June 2015, was made possible by the generous support of the Wellcome Trust (grant number 108326/Z/15/Z) and the Leverhulme Trust (Research Leadership Award, Geissler, F02 116D). Noémi Tousignant gratefully acknowledges support from the Wellcome Trust (grant 209911/Z/17/Z). The authors would also like to thank Ruth J. Prince for helpful advice on earlier drafts of this introduction.

References

Adams, V. (2016) *Metrics: what counts in global health*. Durham NC: Duke University Press.

Antic, A., J. Conterio and D. Vargha (2016) 'Beyond liberal internationalism', *Contemporary European History* 25 (2): 359–71.

[5]A digest is included as part of this journal issue, with a complete version available online at <https://doi.org/10.1017/S0001972019000913>.

Bauman, Z. (2003) 'Utopia with no topos', *History of the Human Sciences* 16 (1): 11–25.
Bayart, J.-F. (1993) *The State in Africa: the politics of the belly*. London: Longman.
Berlant, L. (2011) *Cruel Optimism*. Durham NC: Duke University Press.
Bloch, E. (1986) *The Principle of Hope*. Cambridge MA: MIT Press.
Buck-Morss, S. (2002) *Dreamworld and Catastrophe: the passing of mass utopia in East and West*. Cambridge MA: MIT Press.
Comaroff, J. (1993) 'The diseased heart of Africa: medicine, colonialism and the black body' in S. Lindenbaum and M. Lock (eds), *Knowledge, Power and Practice: the anthropology of medicine and everyday life*. Berkeley CA: University of California Press.
Comaroff, J. L. and J. Comaroff (2009) *Of Revelation and Revolution. Volume 2: The dialectics of modernity on a South African frontier*. Chicago IL: University of Chicago Press.
Conklin, A. J. (1997) *A Mission to Civilize: the republican idea of empire in France and West Africa, 1895–1930*. Stanford CA: Stanford University Press.
Cooper, F. (2002) *Africa since 1940: the past of the present*. Cambridge: Cambridge University Press.
Crane, J. T. (2013) *Scrambling for Africa: AIDS, expertise, and the rise of American global health science*. Ithaca NY: Cornell University Press.
Cueto, M. (2004) 'The origins of primary health care and selective primary health care', *American Journal of Public Health* 94 (11): 1864–74.
David, P. M. and N. Le Dévédec (2019) 'Preparedness for the next epidemic: health and political issues of an emerging paradigm', *Critical Public Health* 29 (3): 363–9.
De Boeck, F. (2011) 'Inhabiting ocular ground: Kinshasa's future in the light of Congo's spectral urban politics', *Cultural Anthropology* 26 (2): 263–86.
De Jong, F. and B. Quinn-Valente (2017) 'Infrastructures of utopia: ruination and regeneration of the African future', *Africa* 88 (2): 332–51.
Droney, D. (2014) 'Ironies of laboratory work during Ghana's second age of optimism', *Cultural Anthropology* 29 (2): 363–84.
Duclos, V., M. Yé, K. Moubassira, H. Sanou, N. H. Sawadogo, G. Bibeau and A. Sié (2017) 'Situating mobile health: a qualitative study of mHealth expectations in the rural health district of Nouna, Burkina Faso', *Health Research Policy and Systems* 15 (S1): 441–53.
Evans, J. R., K. L. Hall and J. Warford (1981) 'Shattuck lecture – health care in the developing world: problems of scarcity and choice', *New England Journal of Medicine* 305 (19): 1117–27.
Fanon, F. (1959) 'Médecine et colonialisme' in *L'An V de la Révolution algérienne*. Paris: F. Maspéro.
Farmer, P. (2014) 'Diary: Ebola', *London Review of Books* 36 (20): 38–9.
Fauci, A. S. (2014) 'Ebola: underscoring the global disparities in health care resources', *New England Journal of Medicine* 371 (12): 1084–6.
Feierman, S. (1985) 'Struggles for control: the social roots of health and healing in modern Africa', *African Studies Review* 28 (2–3): 73–147.
Ferguson, J. (1999) *Expectations of Modernity: myths and meanings of urban life on the Zambian Copperbelt*. Berkeley CA: University of California Press.

Ferme, M. (2014) 'Hospital diaries: experiences with public health in Sierra Leone. Hot spots', *Cultural Anthropology*, 7 October <http://www.culanth.org/fieldsights/591-hospital-diaries-experiences-with-public-health-in-sierra-leone>, accessed 30 November 2015.

Foley, E. (2009) *Your Pocket Is What Cures You: the politics of health in Senegal*. New Brunswick NJ: Rutgers University Press.

Forget, E. L. (2004) 'Contested histories of an applied field: the case of health economics', *History of Political Economy* 36 (4): 617–37.

Fullwiley, D. (2011) *The Enculturated Gene: sickle cell health politics and biological difference in West Africa*. Princeton NJ: Princeton University Press.

Geissler, P. W. (2011) 'Parasite lost: remembering modern times with Kenyan government medical scientists' in P. W. Geissler and C. Molyneux (eds), *Evidence, Ethos and Experiment: the anthropology and history of medical research in Africa*. New York NY and Oxford: Berghahn Books.

Geissler, P. W. (2013) 'The archipelago of public health: comments on the landscape of medical research in twenty-first-century Africa' in R. J. Prince and R. Marsland (eds), *Making and Unmaking Public Health in Africa: ethnographic and historical perspectives*. Athens OH: Ohio University Press.

Geissler, P. W. and A. Kelly (2016) 'A home for science: the life and times of tropical and polar field stations', *Social Studies of Science* 46 (6): 797–808.

Geissler, P. W. and C. Molyneux (eds) (2011) *Evidence, Ethos and Experiment: the anthropology and history of medical research in Africa*. New York NY and Oxford: Berghahn Books.

Geissler, P. W. and N. Tousignant (2016) 'Capacity as history and horizon: infrastructure, autonomy and future in African health science and care', *Canadian Journal of African Studies / Revue Canadienne des Études Africaines* 50 (3): 349–59.

Geissler, P. W. and N. Tousignant with A. H. Kelly, J. Manton and R. J. Prince (2013) 'Introduction: sustaining the life of the polis', *Africa* 83 (4): 531–8.

Geissler, P. W., G. Lachenal, J. Manton and N. Tousignant (eds) (2016) *Traces of the Future: an archaeology of medical science in twenty-first-century Africa*. Bristol: Intellect.

Goldstone, B. and J. Obarrio (eds) (2017) *African Futures: essays on crisis, emergence, and possibility*. Chicago IL: University of Chicago Press.

Gordin, M. D., H. Tilley and G. Prakash (eds) (2010) *Utopia/Dystopia Conditions of Historical Possibility*. Princeton NJ: Princeton University Press.

Harding, S. (ed.) (2011) *The Postcolonial Science and Technology Studies Reader*. Durham NC: Duke University Press.

Harrington, J. (2009) 'Visions of utopia: markets, medicine and the National Health Service', *Legal Studies* 29 (3): 376–99.

Harris, B., J. Goudge, J. E. Ataguba, D. McIntyre, N. Nxumalo, S. Jikwana and M. Chersich (2011) 'Inequities in access to health care in South Africa', *Journal of Public Health Policy* 32 (S1): S102–23.

Harvey, D. (2005) *A Brief History of Neoliberalism*. Oxford: Oxford University Press.

Headrick, D. (2012) *Power Over Peoples: technology, environments, and Western imperialism, 1400 to the present*. Princeton NJ: Princeton University Press.

Hecht, G. (2002) 'Rupture-talk in the nuclear age: conjugating colonial power in Africa', *Social Studies of Science* 32 (5–6): 691–727.

Hecht, G. (2012) *Being Nuclear: Africans and the global uranium trade*. Cambridge MA: MIT Press.
Hoppe, K. A. (2003) *Lords of the Fly: sleeping sickness control in British East Africa, 1900–1960*. Westport CT: Greenwood Publishing Group.
Hunt, N. R. (1999) *A Colonial Lexicon: of birth ritual, medicalization, and mobility in the Congo*. Durham NC: Duke University Press.
Hunt, N. R. (2015) *A Nervous State: violence, remedies, and reverie in colonial Congo*. Durham NC: Duke University Press.
Iliffe, J. (1998) *East African Doctors: a history of the modern profession*. Cambridge: Cambridge University Press.
Illich, I. (1975) *Medical Nemesis: the expropriation of health*. London: Calder & Boyars.
Jameson, F. (2004) 'The politics of utopia', *New Left Review* 25: 35–54.
Jameson, F. (2005) *Archaeologies of the Future: the desire called utopia and other science fictions*. London and New York NY: Verso.
Jamison, D. T. and W. H. Mosley (1991) 'Disease control priorities in developing countries: health policy responses to epidemiological change', *American Journal of Public Health* 81 (1): 15–22.
Kelly, A. H. and P. W. Geissler (2011) 'The value of transnational medical research (introduction to special issue)', *Journal of Cultural Economy* 4 (1): 3–10.
Kennedy, R. (2018) 'Society, technology and cosmology in *Black Panther*', blog, 28 June <https://anthropologyofblackpanther.wordpress.com/2018/06/28/society-technology-and-cosmology-in-black-panther/>, accessed 29 September 2019.
Kilgore, D. W. D. (2014) 'Afrofuturism' in *The Oxford Handbook of Science Fiction*. Oxford: Oxford University Press.
Kusiak, P. (2010) '"Tubab" technologies and "African" ways of knowing: nationalist techno-politics in Senegal', *History and Technology* 26 (3): 225–49.
Lachenal, G. (2010) 'Le médecin qui voulut être roi', *Annales. Histoire, Sciences Sociales* 65 (1): 121–56.
Lachenal, G. (2011) 'The intimate rules of the French coopération: morality, race and the post-colonial division of scientific work at the Pasteur Institute of Cameroon' in P. W. Geissler and C. Molyneux (eds), *Evidence, Ethos and Experiment: the anthropology and history of medical research in Africa*. New York NY and Oxford: Berghahn Books.
Lachenal, G. (2013) 'Le stade Dubaï de la santé publique', *Revue Tiers Monde* 215 (3): 53–71.
Lachenal, G. (2015) 'Lessons in medical nihilism: virus hunters, neoliberalism and the AIDS crisis in Cameroon' in P. W. Geissler (ed.), *Para-states and Medical Science: making African global health*. Durham NC: Duke University Press.
Lachenal, G. (2017) *The Lomidine Files: the untold story of a medical disaster in colonial Africa*. Translated by N. Tousignant. Baltimore MD: Johns Hopkins University Press.
Lachenal, G. (2018) 'Tombola Ebola', *Libération*, 6 June.
Lachenal, G. and A. Mbodj-Pouye (eds) (2014) 'Politiques de la nostalgie (special issue)', *Politique Africaine* 135 (3).
Lagomarsino, G., A. Garabrant, A. Adyas, R. Muga and N. Otoo (2012) 'Moving towards universal health coverage: health insurance reforms in nine developing countries in Africa and Asia', *Lancet* 380 (9845): 933–43.

Levitas, R. (1990) 'Educated hope: Ernst Bloch on abstract and concrete utopia', *Utopian Studies* 1 (2): 13–26.
Lyons, M. (2002) *The Colonial Disease: a social history of sleeping sickness in northern Zaire, 1900–1940*. Cambridge: Cambridge University Press.
MacPhail, T. (2015) 'Global health doesn't exist', *Limn* 5 ('Ebola's ecologies').
Masquelier, A. M. (2001) 'Behind the dispensary's prosperous facade: imagining the state in rural Niger', *Public Culture* 13 (2): 267–91.
Mbembe, A. (2017) 'Africa in theory' in B. Goldstone and J. Obarrio (eds), *African Futures: essays on crisis, emergence, and possibility*. Chicago IL: University of Chicago Press.
McKeown, T. (1976) *The Role of Medicine: dream, mirage, or nemesis?* London: Nuffield Trust <https://www.nuffieldtrust.org.uk/research/the-role-of-medicine-dream-mirage-or-nemesis>, accessed 29 September 2019.
Molyneux, S. and P. W. Geissler (2008) 'Ethics and the ethnography of medical research in Africa', *Social Science and Medicine* 67 (5): 685–95.
Moyi Okwaro, F. and P. W. Geissler (2015) 'In/dependent collaborations: perceptions and experiences of African scientists in transnational HIV research', *Medical Anthropology Quarterly* 29 (4): 492–511.
Neill, D. (2012) *Networks in Tropical Medicine: internationalism, colonialism, and the rise of a medical specialty, 1890–1930*. Stanford CA: Stanford University Press.
Nguyen, V.-K. (2005) 'Antiretroviral globalism, biopolitics, and therapeutic citizenship' in A. Ong and S. J. Collier (eds), *Global Assemblages: technology, politics, and ethics as anthropological problem*. Oxford: Blackwell.
Osseo-Asare, A. D. (2014) *Bitter Roots: the search for healing plants in Africa*. Chicago IL: University of Chicago Press.
Packard, R. M. (1989) *White Plague, Black Labor: tuberculosis and the political economy of health and disease in South Africa*. Berkeley CA: University of California Press.
Packard, R. M. (2016) *A History of Global Health: interventions into the lives of other peoples*. Baltimore MD: Johns Hopkins University Press.
Pfeiffer, J. and R. Chapman (2010) 'Anthropological perspectives on structural adjustment and public health', *Annual Review of Anthropology* 39: 149–65.
Piot, C. (2010) *Nostalgia for the Future: West Africa after the Cold War*. Chicago IL: University of Chicago Press.
Piot, C. (2017) 'Hedging the future' in B. Goldstone and J. Obarrio (eds), *African Futures: essays on crisis, emergence, and possibility*. Chicago IL: University of Chicago Press.
Prince, R. J. (2013) 'Introduction. Situating health and the public in Africa: historical and anthropological perspectives' in R. J. Prince and R. Marsland (eds), *Making and Unmaking Public Health in Africa: historical and anthropological perspectives*. Athens OH: Ohio University Press.
Prince, R. J. (2017) 'Universal health coverage in the global South: new models of healthcare and their implications for citizenship, solidarity and the public good', *Michael* 14: 153–72.
Prince, R. J. and R. Marsland (eds) (2013) *Making and Unmaking Public Health in Africa: historical and anthropological perspectives*. Athens OH: Ohio University Press.

Prince, R. J. and P. Otieno (2014) 'In the shadowlands of global health: observations from health workers in Kenya', *Global Public Health* 9 (8): 927–45.
Redfield, P. (2012) 'The unbearable lightness of expats: double binds of humanitarian mobility', *Cultural Anthropology* 27 (2): 358–82.
Redfield, P. (2016) 'Fluid technologies: the Bush Pump, the LifeStraw® and microworlds of humanitarian design', *Social Studies of Science* 46 (2): 159–83.
Reinhardt, B. H. (2015) *The End of a Global Pox: America and the eradication of smallpox in the Cold War era*. Chapel Hill NC: University of North Carolina Press.
Robins, S. and B. Von Lieres (2004) 'Remaking citizenship, unmaking marginalization: the Treatment Action Campaign in post-apartheid South Africa', *Canadian Journal of African Studies / La Revue Canadienne des Études Africaines* 38 (3): 575–86.
Rottenburg, R. (2009) 'Social and public experiments and new figurations of science and politics in postcolonial Africa', *Postcolonial Studies* 12 (4): 423–40.
Street, A. (2018) 'The testing revolution: investigating diagnostic devices in global health', Somatosphere Diagnostic Stories, 9 April <http://somatosphere.net/2018/04/testing-revolution.html>, accessed 29 November 2018.
Sullivan, N. (2011) 'Mediating abundance and scarcity: implementing an HIV/AIDS-targeted project within a government hospital in Tanzania', *Medical Anthropology* 30 (2): 202–21.
Swanson, M. W. (1977) 'The sanitation syndrome: bubonic plague and urban native policy in the Cape Colony, 1900–1909', *Journal of African History* 18 (3): 387–410.
Thompson, P. and S. Žižek (eds) (2013) *The Privatization of Hope: Ernst Bloch and the future of utopia*. Durham NC: Duke University Press.
Tilley, H. (2011) *Africa as a Living Laboratory: empire, development, and the problem of scientific knowledge*. Chicago IL: University of Chicago Press.
Titmuss, R. M. (1964) *The Health Services of Tanganyika: a report to the government*. London: Pitman Medical Publishing for African Medical and Research Foundation.
Tousignant, N. (2013) 'Pharmacy, money and public health in Dakar', *Africa* 83 (4): 561–81.
Tousignant, N. (2018) *Edges of Exposure: toxicology and the problem of capacity in postcolonial Senegal*. Durham NC: Duke University Press.
Turshen, M. (1999) *Privatising Health Services in Africa*. New Brunswick NJ: Rutgers University Press.
Vargha, D. (2018) *Polio across the Iron Curtain: Hungary's cold war with an epidemic*. Cambridge: Cambridge University Press.
Vaughan, M. (1991) *Curing their Ills: colonial power and African illness*. Cambridge and Stanford CA: Polity and Stanford University Press.
Walsh, J. A. and K. S. Warren (1980) 'Selective primary health care: an interim strategy for disease control in developing countries', *Social Science and Medicine. Part C: Medical Economics* 14 (2): 145–63.
Wendland, C. L. (2010) *A Heart for the Work: journeys through an African medical school*. Chicago IL: University of Chicago Press.
Wendland, C. L. (2012) 'Moral maps and medical imaginaries: clinical tourism at Malawi's College of Medicine', *American Anthropologist* 114 (1): 108–22.

White, L. (1995) '"They could make their victims dull": genders and genres, fantasies and cures in colonial southern Uganda', *American Historical Review* 100 (5): 1379–402.
Whyte, S. Reynolds (ed.) (2014) *Second Chances: surviving AIDS in Uganda*. Durham NC: Duke University Press.
World Bank (1993) *World Development Report: investing in health*. Washington DC: World Bank.