Title: ARVs and ARTs: Medicoscapes and the Unequal Place-making for Biomedical Treatments in sub-Saharan Africa
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ARVs and ARTs: Medicoscapes and the Unequal Place-making for Biomedical Treatments in sub-Saharan Africa

Asking why some diseases gain global attention whereas others are neglected, we present two case studies that demonstrate the unequal treatment and financing options available for HIV/AIDS versus infertility treatments. We track three key phenomena central to understanding the unequal public attention given to certain ailments: peace and security, subordination of the social to the biological, and a “global” quality. Existing concepts such as global assemblages or therapeutic citizenship are quite limited when it comes to bodily conditions that result in social suffering and do not satisfy the conditions of advocacy. Since it is not enough to observe “flowing” and “moving,” we propose the concept of medicoscapes, to acknowledge that such activities simultaneously entail channeling and carving out. Medicoscapes enhance the analysis of linkages between different health conditions regardless of whether they are biological or social and how they interconnect places, sites, and people.

Introduction

AIDS, malaria, and tuberculosis are perceived in international health arenas as major threats to human health and wellbeing. They receive global attention and are targeted by intervention programs. However, there are many more infections, diseases, and ailments that severely harm human well-being. Why do some diseases gain global attention while others are not tackled? Which criteria play a role in triggering global interventions and financial support for international health programs?

Taking these questions as our point of departure, in this article we will focus on HIV and therapeutic policies of pharmaceutical treatments with antiretroviral therapies (ARVs) on the one hand, and on infertility and the availability of assisted reproductive technologies (ARTs) in sub-Saharan Africa, on the other. Applying anthropological means of analysis, we will contrast both afflictions as well as their characteristic elements and critically reflect on the reasons for their distinct prominence on international levels as well as their potential in terms of attracting international solidarity and funding.

To conduct this contrast, our analysis embraces globalization theories that deal with medical issues. Existing concepts such as global assemblages (Collier and Ong 2005) or therapeutic citizenship (Nguyen 2005) are helpful for describing the processes evolving around some of the afflictions that have become recognized as globally relevant over the last few decades. However, when analyzing the contrasting positioning of HIV/AIDS and infertility and their biomedical treatment options within the field of global health, it becomes evident that the scope of the aforementioned concepts is empirically and theoretically limited.
This is particularly so when it comes to diseases that do not serve the conditions of international advocacy and have not gained prominence within global health arenas. To fill this gap, we suggest the concept of medicoscapes as an umbrella tool to analyze a variety of dynamics of globalization at work in health-related fields. We argue that this concept is very helpful for visualizing and grasping the complexity of intertwined local, national, and global relations without neglecting the differences, inequities, and disparities between the distinct actors, practices, ideologies, and dynamics currently shaping health-related phenomena (Hörbst and Wolf 2003).

In the first section, we outline our theoretical and methodological background before providing a short description of the prevalence and characteristics of infertility and HIV/AIDS. In the second and third sections, we look at important features of their treatment options in sub-Saharan Africa, particularly in Mali. In the next section, we analyze the two afflictions’ different positioning in global health arenas and the resulting unequal treatment and financing options. We also suggest and discuss three major aspects that are central to the unequal attention received by ARVs and ARTs in the globalized public. In the fifth section, we investigate the influence and success of social movements involved within these dynamics and processes and outline why the concept of medicoscapes provides a useful framework for analyzing the interactions and complexities of various diseases, scales, and sites and the respective distinctions in the resulting dynamics. In the final section, we argue that the concept of medicoscapes is useful as a prism for critically reflecting on the distinct results of ongoing globalized entanglements in the international health arena.

**Medicoscapes, Power Topographies, and Social Sites**

Over the last decades, it has become clear that medical issues can no longer be regarded within locally isolated frames of reference such as nation-states. This observation leaves us with the challenge of how to capture—analytically and theoretically—the highly complex and heterogeneous layers, processes, and results of globalization in the field of health, care, and international support. Collier and Ong suggested the term “global assemblages” as a theoretical means of grasping the multifold, worldwide combinations of heterogeneous elements. Assemblages, they argue, are produced by “multiple determinations that are not reducible to a single logic” (Collier and Ong 2005:12).

Building partially on the suggestions of Collier and Ong and on the work of Appadurai (1990), we propose the concept of medicoscapes to simultaneously grasp different processes and forms of entanglements on local, national, and international layers in the domain of health. We offer the following working definition: Medicoscapes constitute globally dispersed landscapes of individuals; national, transnational, and international organizations and institutions as well as heterogeneous practices, artifacts, and things, which are connected to different policies, power relations and regimes of medical knowledge, treatments, and healing. While concentrated in certain localities, medicoscapes connect locations, persons, and institutions via multiple and partially contradicting aims, practices, and policies (Hörbst and Krause 2004:54–56; Hörbst and Wolf 2003:4).

In our analysis, we stick to the suffix “scape” because it draws on social topographies of power in relation to the idea of global landscapes. The term “landscape” enables the inclusion of the spatial expressions of power relations in the description, relatedness, and movements between foregrounds and backgrounds, between different kinds of actors and agents, and across political and social boundaries. In a landscape, certain areas are higher than others, or are exclusive or hidden, are on a main road or are reachable only via small pathways. Simultaneously, landscapes are constituted by unequal types of elements (such as streets, houses, lakes, mountains, plants, animals, etc.), which are grouped together in a
certain way and thus form the specificity of a locale. As Tsing so brilliantly reminds us, the term also draws attention to the fact that globalization works in terms of movement, circulation, and opening up of possibilities, while simultaneously bringing about closure, exclusion, and discrimination. Moreover, since the activity of flowing itself involves “carving out” and “making terrain,” there can be no territorial distinction between the “global” transcending of place and the “local” making of places (Tsing 2000:338).

Akin to Tsing, Massey (1994) argues that places can be imagined as far-reaching networks of social relations being continually undergoing (re)construction. In these processes, distinct social groups and individuals are differently positioned and form a specific “power geometry of time-space compression” (Massey 1994:148). To connect actors and practices and to discuss the formative power of cultural aspects, in our concept of medicoscapes we link Tsing’s “place making” with Massey’s “power geometry” to Schatzki’s (2002) notions of the social site and the future-organizing significance of values for both orders and practices (Schatzki 2003:196).

Conveying the significance of Schatzki’s thoughts for medicoscapes requires investigating the orders and the practices of actors, things, and organisms in the medical field. Medical doctors, healers, NGOs, patients, state institutions, the World Health Organization (WHO), and the like constitute the actors of the medical field. These actors, together with materials such as needles, ultrasound machines, money, and so on, and organisms such as bacteria, viruses, and so on, form the mesh of orders. These orders hang together with the many distinct “bundles of practices” in medical settings like actions and decisions by single practitioners or patients, with tasks like surgeries, healing rituals or meetings of health insurance agencies, or health-related NGOs. Neither actors nor practices in medicoscapes are arranged on one level but are hierarchically positioned and constitute a specific power topography. These notions nicely overlap with our idea of medicoscapes in which health practices and health orders intersect across time and space, while their interrelations are traceable only in specific localities.

To illustrate the validity of the theoretical concept of medicoscapes in connection with empirical data, we have chosen to contrast the treatment options for HIV/AIDS and infertility in sub-Saharan Africa. Both ailments are chronic conditions and intimately linked to sexuality and reproduction. ARVs and ARTs are high-tech therapeutic techniques originating from Euro-American countries, whereas HIV/AIDS as well as infertility are more prevalent in low- or middle-resource countries in sub-Saharan Africa than in Euro-American contexts. Although a comparison might seem challenging, as both afflictions and their therapies differ in many aspects, it is exactly these differences and similarities that render them useful for showing the limitations of current concepts in medical anthropology and beyond. Contrasting the international support flows for highly sophisticated treatment options of HIV/AIDS with the ones for infertility makes evident the differences in commitment and attention to these afflictions within the academic world and in development areas.

Our aim here is not to convince readers to equally finance treatments or to promote new interventions, but rather to encourage critical reflection on the underlying assumptions and characteristics of international support for (biomedical) treatment options that are globally relevant. Working within a framework of critical medical anthropology, we step back from an interventionist frame when contrasting the international endorsement for HIV/AIDS and infertility treatments. Instead, we aim to provide insight into the ways in which international health arenas and academia define and produce the targets of intervention. As we will show, some concepts such as therapeutic citizenship only apply to the dynamics around certain ailments, such as HIV/AIDS, in connection with specific configurations of global health arenas, while the concept of medicoscapes enables us to expand the analysis to include the diverse and sometimes contradicting dynamics emerging within global health interventions.
This focus, as well as the questions we address in this article, emerged out of our intensive exchanges as colleagues on the similarities and differences, impacts, and characteristics of ARVs and ARTs. Angelika Wolf is committed to research on HIV/AIDS in Germany, Malawi, and South Africa, while Viola Hörbst focuses on infertility and ARTs in Mali, Senegal, Togo, and recently Uganda. While the data on the flow of techniques and money for ARVs are mainly drawn from an intensive Internet search, the data concerning infertility come from fieldwork carried out in Mali between 2004 and 2011. This research included nonparticipating observation, detailed follow-up interviews with treatment providers and infertile couples with and without experience of ART treatments, and interviews with focus group and policymakers.

**HIV/AIDS and Infertility: Two Afflictions and their Characteristics of Stigmatization**

We compare the prevalence, local perception, and therapy of HIV/AIDS and infertility in Sub-Saharan Africa to delineate similarities of and differences between the international reactions to the two afflictions. Since the outbreak of the HIV/AIDS epidemic at the beginning of the 1980s, nearly 30 million people have died from AIDS-related diseases worldwide. An estimated 33 million people are currently living with the virus globally. Sub-Saharan Africa remains the most affected continent in the world: 68% of people living with HIV are found there, although it is home to only 10% of the world’s overall population. AIDS is the leading cause of death in this region: Of all global AIDS deaths in 2009, 72% occurred in sub-Saharan Africa (UNAIDS 2010:2).

Countries in the southern parts of sub-Saharan Africa have especially been struck by the epidemic. Whereas in Swaziland the prevalence is highest, with 26% of the population infected, in Mali it has declined to 1% among the adults between the ages of 15 to 49 (UNAIDS 2012). The AIDS epidemic affects the demographic structures of entire populations and thereby the political, economic, and social aspects of societies. In some African countries, it has led to a drastic decline in life expectancy and to a severe reduction of the labor force.

Looking at the numbers, it becomes apparent that fertility problems are also a phenomenon that affects millions of people around the world. While infertility rates in more developed countries are estimated to range between 3.5% and 16.7% of the population, with an assumed rate of around 11.3% in Europe (Boivin et al. 2007:1508), in developing countries “one in four ever-married women of reproductive age” may be infertile according to the WHO (2010a). In sub-Saharan Africa, a total of 34 million ever-married women are estimated to suffer from infertility (Rutstein and Shah 2004:25). The rates for sub-Saharan countries on average range between 5% and 23% (Larsen 2000), and in some countries they are as high as 29%. Of the total population of 14.5 million in Mali, 2.3% of women between 25 and 49 are indicated for primary infecundity, and within the same group 27.9% are classified under secondary infecundity (Rutstein and Shah 2004:23, 32).

In many African countries, AIDS is placed in relation to local disease concepts that are associated with pollution, adultery, and moral transgression (Ingstad et al. 1997; Mogensen 1997; Wolf 2001). The symptoms of AIDS such as diarrhea, vomiting, and excessive weight loss are often similar to the ones that signify a breach of the taboos that regulate sex life. This social etiology contributes to labeling HIV/AIDS as a “punishment from God” and as resulting from deviant behavior. Such labeling goes hand in hand with fear of contagion, exclusion from social activities, and assigning stigmatizing stereotypes like the “walking dead” (Robins 2004:96). Shame, denial, and even the hiding of ARVs are widespread consequences of such stigmatization. Once the side effects are under control, most HIV/AIDS patients gain weight and feel strong again, yet even then many of them do not disclose their
status beyond their support group, fearing the social consequences (Mattes 2011; Sow and Desclaux 2002; Steuer 2012).

In the same vein, people with infertility problems in sub-Saharan Africa face strong stigmatization. When marriage is not followed by children, many women are subject to daily teasing and provocative allusions by members of their husbands’ families, but also to stigmatization from the wider social environment, such as neighbors, colleagues, and friends (Feldman-Savelsberg 1994; Kielman 1998; Leonard 2002; Opara 2006). In Mali, this stigmatization is often perpetuated by notions regarding the maliciousness and worthlessness of childless women. Offending remarks are made frequently, such as “my son sleeps with a man”—a comment that refers to the fact that childless women are not seen as completely female persons. Although married men may also be teased about their childless wives, in the public narrative male infertility is usually not considered a reason for marital childlessness and is seen as the ultimate shame and disgrace for a man (Hörbst 2010). Within the locally specific configuration in Mali, successful reproduction is a strong social expectation for women and a basic prerequisite for a woman’s social respect and capital. Remaining childless becomes equivalent to social death as such women are excluded from many daily practices centered on children and the care for them.

Remaining childless is not desirable for men or women in Mali, and the need for children arises from the couple as well as from the extended family. As has been reported from across sub-Saharan Africa, children are highly valued first and foremost because they provide families and parents with working hands. They provide economic as well as physical support in old age and ensure continuity of the lineage and the family’s connection with ancestral spirits (Gerrits 2002; Hörbst 2006; Kielman 1998; Leonard 2002; Wolf 2010). According to fieldwork data, producing children is essential in Mali for being recognized as a fully fledged social person and it is also a major objective for marriage. Moreover, for Malian women who live within extended families, with co-wives and often demanding sisters- and mothers-in-law, children are often the only people they can totally rely on (Hörbst 2006).

HIV/AIDS and Infertility: Two Afflictions and Their Treatment Contexts in sub-Saharan Africa

Looking at therapy and its availability for AIDS, biomedical options to address the epidemic have shifted in the last decades from focusing on prevention to emphasizing treatment and, most recently, to underlining “treatment for prevention” (Hardon and Dilger 2011:150). These changes in practices emerged when the first ARVs were made available. For most people in Euro-American societies as well as for the rich in sub-Saharan Africa, ARVs became a symbol for survival and helped reduce stigmatization. However, the costs of ARV treatment were initially very high, and ARVs are still a symbol of unattainable opportunities for many poorer Africans. At the end of 2009, the total number of people estimated to be in need of antiretroviral therapy in low- and middle-income countries was 14.6 million. Only 5.25 million of them received treatment that same year (WHO 2010b:51–54).

Generic drugs became affordable on a broader basis through a joint effort of activists from the South African Treatment Action Campaign (TAC) and Doctors Without Borders (Médecins Sans Frontières) (Robins 2004). As a result of international public pressure, the annual cost of the recommended antiretroviral therapy decreased from over US$10,000 to an average of US$137 per person in 2009 (WHO 2010b:70). In Mali, the first antiretroviral drugs became available in 2001.

Due to the normative pressure to bear children and the drastic social suffering related to childlessness, women in Mali (as in many other countries in sub-Saharan Africa) are ready to undergo any treatment possible to overcome this ailment. Apart from so-called traditional
treatments, whereby couples rely on marabouts, herbal remedies or animistic hunters, most couples simultaneously consult biomedical doctors in the public health sector. Many also frequent gynecologists in the private sector, as they are regarded as delivering better services than their colleagues in the public system. Since infertility treatments (including traditional ones) are not free of charge, a couple’s therapeutic options for becoming pregnant depend on their and their families’ access to financial resources (Hörbst 2012a). Formal adoption or raising foster children as well as marrying a second wife are all alternatives to overcome infertility in sub-Saharan African countries.

The data from Mali clearly reveal that these options are not a solution for many women: Rather, these three practices trigger further problems within the family for them and do not reduce social stigmatization. Involuntarily childless women in Mali clearly favor solutions that enable them to become pregnant—as the visibility of pregnancy is the most effective way to seriously reduce or stop social stigmatization (Hörbst 2012b).

One major cause of infertility in sub-Saharan countries, including Mali, is sexually transmitted diseases, which are largely responsible for the high prevalence of blocked fallopian tubes and azoospermia among the population of this region (Mayaud 2001). Besides campaigns for prevention, classical biomedical interventions embrace hormonal stimulation, tubal operations, the application of hormonal cocktails or insemination without sperm treatment, and so on. A biomedical milestone was reached in the late 1970s when in vitro fertilization (IVF) was successfully carried out in the United Kingdom. Since then, ARTs (including insemination [IUI], IVF, and intracytoplasmic sperm injection [ICSI]) have been biomedicine’s most sophisticated means of treatment for both primary and secondary female- and male-factor infertility. In many countries in the Western Hemisphere, treatments with ARTs are provided and in some states are even paid for by health insurance or national funds; this is not the case in most African countries (Hörbst 2012b).

Although ARTs have since made their way to many African countries, these treatments are mainly available in the private health sector. So far, neither international donors nor governments fund treatment with ARTs for involuntarily childless couples in sub-Saharan Africa. Although costs for ARTs in Mali are on average lower than in Europe or the United States, since the average per capita income in Mali is very low (estimated at US$470 in 2006 [USAID 2009]) and no public financial support exists for this ailment, only more affluent Malians can afford to undergo such treatments. In Bamako, for instance, one insemination attempt costs US$1,700–$2,600, including pharmaceuticals, analysis, and doctor’s fees. For one classical IVF cycle, expenses can reach US$3,300–$4,000. For ICSI, one cycle adds up to US$4,800. Additionally, foreign travel and accommodation expenses for two people are saved when ARTs are carried out in Mali. This substantial drop in costs puts ARTs within reach of more persons belonging to the emerging middle class in Mali.

Both HIV/AIDS and infertility have strong links to sexuality, to the mainstream construction of gender relations, and to normative questions with regard to prestige within sub-Saharan African societies. In both cases, the materials and know-how for treatment were initially accessible only to sub-Saharan Africans with transnational networks, substantial capital, and those without visa problems, as treatment required international travel. Another similarity shared by ARVs and ARTs is that they were initially extremely costly and hence beyond the means of most sub-Saharan Africans. Both the treatment with ARTs as well as with ARVs requires specialized knowledge and skills, specific laboratory equipment, and sophisticated pharmaceutical supply lines. Yet for ARVs, specific configurations of transnational and international actors collaborated to expand access to generic drugs, over time massively reducing treatment costs in sub-Saharan African countries. International philanthropic organizations, political activists, and multilateral governmental programs played a key role in increasing cost-free provision of ARVs to patients in many African states. Thus
far, there have been no such movements for treatment of infertility with ARTs. To investigate these differences, we will now explore the positioning of both afflictions in global health arenas.

**ARVs and ARTs: Different Positioning in Global Medicoscapes**

When analyzing the positioning of HIV/AIDS and infertility in the field of global health, crucial differences emerge in terms of the support for treatment and financing available to sub-Saharan Africans. Policy decisions, the flow of finances, knowledge and technology, drug distribution, and treatment applications interact within global medicoscapes involving different actors such as NGOs, transnational organizations, the pharmaceutical industry, multilateral governmental programs, activists, individual health personnel, and patients. Each actor brings in different perspectives, targets, knowledge regimes, and sociocultural values that may partially overlap or be incompatible.

These aspects interweave with each other through orders and practices and form the foundation for hierarchical configurations in intended and unintended ways. They bring to the fore the underpinning values and aims of international and transnational support for global health that intimately influence the effectiveness of some social movements while failing to provide similar support for other serious afflictions. In our opinion, three major factors are central to the divergence in the treatment and financial handling of HIV/AIDS and infertility: (1) peace and security; (2) the subordination of the social to the biological; and (3) a certain global public quality.

First, an ailment’s supposed importance in terms of global security matters: HIV/AIDS may determine the fate of whole nation-states, and the epidemic is publicly perceived as a clear worldwide threat to peace and security. In 2000, the UN Security Council for the first time debated security not in terms of war and peace but in regard to health and began considering AIDS as a worldwide threat to economic, social, and political stability. Moreover, the virus itself carries the notion of an angst-ridden entity. As a “virus sociologicus” (O’Neill 1990:329), it is not only able to cross borders without being recognized, but due to its mobility and flexibility, it has also become a symbol of fear in a globalized world. While AIDS is a contagious syndrome, infertility is not an infectious condition and definitely is not considered disruptive to worldwide security and peace. On the contrary, among the international public and the policy-making world, it is the perceived overpopulation and high birthrates that are regarded as a matter of global concern, as they are, generally speaking, considered an obstacle to development (Daar and Merali 2002:15; van Balen and Inhorn 2002:6–7). This perception has led to development programs such as family planning, child spacing, and contraceptive promotion, while no substantial international activities have emerged to support biomedical solutions for involuntary childlessness.

Monitoring population growth has become a global agenda due to fear of overpopulation. In this arena, “hyperfertility” and overpopulation are still seen as major obstacles for economic and social development, despite the estimation that by 2050, population growth will have come to a halt and will then decline worldwide (Ombelet et al. 2008:609). The overpopulation argument is often combined with financial concerns when referring to resource-poor countries. According to this reasoning, scarce public resources are needed to provide primary health care and to cope with principal public health problems such as malaria, tuberculosis, and HIV/AIDS. In this way, specific power topographies concerning different health conditions and priorities of treatment are carved out on international and subsequently national levels.

This situation is mirrored in the Malian case. Mali signed the statements from the International Conference on Population and Development (ICPD) 1994 in Cairo (Daar and
Merali 2002:19), in which access to adequate infertility treatments was formulated as a major objective. But Malian state activities focus on preventive programs concerning infertility, while improvement of treatments for childless couples seems rather marginal in the public health sector (Malian Ministry of Health 2006). National Malian policies officially aim to further reduce birth rates, an objective in line with the opinions of potential international donors, yet Malian birth rates remain quite high, with an average of 6.3 children per woman (Worldbank 2012).

Second, the ongoing reduction of the social to the biological within biomedicine and biopolitics is crucial for developments in this field. In contrast to the biomedical condition of being HIV positive, framed primarily as a global public health issue, infertility is typically regarded as a personal problem within international public and biomedical discourses. Despite this international view of infertility, in many sub-Saharan African societies it is perceived as a major public health issue (Feldman-Savelsberg 2002), a devastating threat resulting in hardship, ostracism, and immense social suffering (Kielman 1998; Leonard 2002; Ombelet et al. 2008; Opara 2006).

Although infertility can lead to social death, from the biological point of view it is not life threatening. According to Fassin (2001:5), within the field of health there is a noticeable intensification of ongoing biopolitics that must “be understood as an extreme reduction of the social to the biological: the body appears to be the ultimate refuge of a common humanity,” thereby giving the body a level of priority in health discourses and interventions that far eclipses the social aspects of health. If biological life is not endangered—as is the case with infertility—the claims surrounding the significance of this issue do not carry the same weight or command the same attention that triggers flows of money and support to Africa for HIV/AIDS. Clearly, suffering from infertility is assigned to the realm of social health, which is not an issue of concern for international health actors, while HIV/AIDS and the efforts to make treatment via ARVs accessible in sub-Saharan Africa have risen to global prominence in the last decades.

Third, syndromes or diseases need to achieve a certain global quality to gain worldwide attention. Although infertility is more prevalent in many African societies than in Euro-American ones, and despite the fact that infertility can have the effect of social death in sub-Saharan Africa, it does not generate enough dismay and shock in the West to qualify for attention on a global scale like AIDS. The notion of infertility being a public health need (Feldman-Savelsberg 2002) in developing countries with high birth rates is underestimated in the international charity world. This is also linked to a Euro-American attitude, according to which living without children is widely accepted and has no severe social consequences. As a result, a Western-biased notion emerges that to have children or not is a life-style decision rather than an essential social norm. Additionally, widespread preoccupation with overpopulation, high birth rates, and HIV/AIDS in sub-Saharan Africa renders invisible the high prevalence and the dramatic local social consequences of infertility.

Distinct meaning and importance are assigned to each of the two health problems outlined here according to different prefiguring values in relation to orders and practices of health governance and international activism. However, within the intersection of biology, social relations, and moral political claims, there are only certain infections such as HIV that disrupt the biological survival of individuals to a major extent and thus can accumulate enough global quality to serve as a frame of reference for what we would term “playing the ethical card of humanity.” Global attention seems to result from different constellations as argued here and, at the same time, forms a prerequisite for international support in providing access to or denial of biomedical treatment.

Although peace and security, the subordination of the social to the biological, and a certain global quality are central aspects of ARVs’ and ARTs’ positioning, intimately
entangled with these constellations are the role and efficacy of social activist movements around ARTs and ARVs, which we explore next.

ARVs and ARTs: Social Movements and Culturally Coined Values in Contrast

No global social activist movement currently exists regarding ARTs. Neither campaigns nor huge flows of money support this issue. So far, the provision of infertility treatments is barely supported by sub-Saharan African states and NGOs. In Mali, no NGO provides significant information or funding for ARTs. Similarly, no self-support groups for involuntarily childless couples are initiated or backed up by local NGOs in cooperation with transnational NGOs, philanthropic organizations, or health activist movements. The option for treating infertility with ART in sub-Saharan Africa (besides South Africa) is mainly provided in the private health sphere and generally established only with the support of private individual transnational networks or by gynecological professional organizations.

Treatment with ARTs is now offered in more than two dozen infertility clinics in sub-Saharan Africa (Pilcher 2006:976), of which seven are located in Francophone West Africa. In Mali, for example, one clinic has been investing serious amounts of its private capital to acquire skills and technological equipment for ART since 2004. Initially, the clinic mainly purchased second-hand devices, bought from European medical equipment retailers or directly from clinics or retiring practitioners. To acquire know-how and practical skills, the staff members also invested time and money to conduct several internships in Europe and elsewhere overseas. This example demonstrates that, when it comes to support for ARTs, the international, transnational, and national linkages of materials, people, and activities mainly form loose networks organized on professional but mainly individual levels.

Regarding infertility, the women’s health movement of the 1990s was only partially successful and has so far not succeeded in expanding access to ARTs for sub-Saharan African women yet. As outlined above, the three aspects (peace and security, subordination of the social to the biological, and a certain global quality) play crucial roles in limiting international solidarity or a flow of financial resources for infertility and ARTs. But some aspects of this failure of the women’s health movement in regard to ARTs are tied to its intimate link to the women’s liberation movement and some of its specific socioculturally configured aims and values.

With regard to ARTs, Western feminist critique oscillated between two positions: A rather liberal part regarded ARTs as having the potential to augment reproductive choices for women, while a more radical position saw the enhancement of motherhood through ARTs as further supporting the main obstacle to women’s liberation (Thompson 2002:54; van Balen and Inhorn 2002:15).

On the one hand, many feminists perceived ARTs as “increasing the subservience to one’s biology” and “an ever greater surveillance” (Thompson 2002:54) of women and their bodies by biomedicine. Further, the notion that ART patients are not suffering life-threatening conditions but are instead pursuing life-style goals and that most of them are high-paying consumers added other problematic aspects (Thompson 2002:57) to the debate within feminist movements. In addition, concerns against technical interventions pervade parts of the movement, leading to the formulation of demands for alternative options (such as adoption or child-free living).

On the other hand, some feminists supported ARTs because they saw in them “the potential to articulate new ways of embodying reproduction, some of which would disrupt conventional families and gender stereotypes” (like access for homosexual women to reproduction) (Thompson 2002:64). They critically argued that “reproductive services were still tied into broader state policies of selective pro- and anti-natalism” (Thompson 2002:67).
In the 1990s, the women’s health movement called for global adherence to reproductive rights. Ironically, HIV/AIDS played a role in bringing some attention to infertility, as women wishing to become pregnant are less likely to use condoms and are thus at higher risk of becoming infected (van Balen and Inhorn 2002:17). In 1994, various NGOs and feminist groups were present at the ICPD in Cairo, where the right to reproduction was acknowledged as a basic human right (Daar and Merali 2002:19; Inhorn and Bharadwaj 2007:78). As a result, infertility problems and access to adequate treatment have been at least formally recognized on international health agendas and in international population and development circles (van Balen and Inhorn 2002:17). Nevertheless, these agreements neither substantially increased the flow of money for ARTs, supportive activities by Western social movements, or the issue’s visibility among the global public.

Lacking this public movement component, infertility patients in sub-Saharan Africa generally try to remain invisible, and interrelations between the actors—doctors, patients, relatives—are traceable only in specific localities. In Mali, infertile couples perceive public disclosure as disrupting the mainstream normality and status they are trying to achieve. They also argue that public disclosure would put the children at risk of social stigmatization. As a result, only a few groups or individual contacts are possible between infertile couples from the northern hemisphere and the southern one.

While patient self-help groups offering information and counseling for infertile couples have been founded in several North American and Western European countries (van Balen 2002:92), their role in policy-making is seldom visible to a broader public. No activist campaign for ARTs has managed to become globally prominent in either European or other industrialized countries around the world. This lack of broad visibility together with a strong privatization of treatment markets (Thompson 2002:58) has rendered ARTs in the United States and Europe a mainly private affair—an aspect mirrored in sub-Saharan Africa—and tends to impede social activists and their attempts to establish transnational or international linkages.

Furthermore, although social movements often strive to change local social norms of gender understanding and practices into more progressive, liberal, and equity-based ones (according to U.S. and West European understanding), infertile couples more often stick to locally shaped reproductive social norms of having children and try to fulfill those norms. For mainstream feminist perceptions, ARTs enhance motherhood and tend to stabilize locally reigning social orders that are oppressive for women instead of challenging and breaking up these orders. From this perspective, strong pro-natalism, together with the importance of motherhood in many African countries, is not perceived as advancing women’s liberation but rather creates friction with broader European and U.S. values. Together with the low-resource and overpopulation argument and with the subordination of social suffering to biological life-ending threats, this perception seems to further strengthen the barriers against global interventions by social activist movements about infertility issues in African countries.

A sharp contrast exists between ARV intervention programs and treatment via ART. In the last two decades, a whole “AIDS Service Industry” (Patton 1990:5) has been established. The evolving relationship between the epidemic and global response processes has led to the foundation of institutions that operate on international and transnational levels as well as to constant and increasing flows of money into affected countries in sub-Saharan Africa. The new millennium brought about a number of worldwide interventions, among them the Global Fund to Fight AIDS, Tuberculosis and Malaria and PEPFAR (the [U.S.] President’s Emergency Plan for AIDS Relief).

Since 2002, the Global Fund has approved US$12.0 billion and disbursed US$7.3 billion to cover HIV/AIDS programs in 146 countries worldwide. There is frequent overlapping of ARV treatment at the national level between the Global Fund and PEPFAR.
For example, both organizations jointly financed ARVs for 1.54 million people, resulting in 4.67 million patients being provided with ARVs in low- and middle-income countries by September 2010 (PEPFAR 2011:10). Of these funds, US$4.1 billion (56%) went to the sub-Saharan Africa region (Global Fund 2011:42). Mali received US$52 million for ARV treatments between 2005 and 2009 through the Global Fund, and another US$40 million were approved at the beginning of 2010 for this purpose (Global Fund 2011:105).

The development of these flows and dynamics was enabled by international AIDS activists’ engagements, extending back to the early times of the gay rights movement in the United States. Gay rights groups reorganized themselves to fight the epidemic soon after it emerged in the beginning of the 1980s. In San Francisco, New York, and Los Angeles, AIDS activists arranged demonstrations and actions related to AIDS issues in the 1990s. They organized community mobilization, self-help groups, advocacy, and fundraising (Engel 2006:23–26). In the face of a life-threatening illness and the need for new treatment, AIDS activists and members of the gay rights movement also challenged the practice of the clinical trials system. They demanded larger enrollment and criticized the slow pace of the trials. Finally, the movement had an impact on the drug approval process and experimental drugs were made available to those unable to participate in clinical trials (Smith 1998:184–188).

Many methods of activism used by the gay and civil rights movements in the United States and Western Europe proved their value in the struggle for treatment in South Africa: A mobilizing process with demonstrations and public awareness campaigns took place; self-perception as a growing community spread; public suffering or even the death of prominent figures brought publicity; powerful symbols such as the red ribbons sold at each World AIDS Day were used; and powerful concepts such as living “positively” arose (Dilger 2001). These dynamics helped establish global ties between diverse communities that communicate worldwide via the Internet and the media.

In his article, Robins (2004), shows how TAC and Doctors Without Borders strategically positioned themselves within the fight for treatment in Africa. Contacts were established between these organizations at international AIDS conferences and maintained via electronic mass communication (Smith and Siplon 2006:85). However, it was a prominent figure—Zackie Achmat, anti-apartheid and gay activist and one of the founders of TAC—and his international ties who triggered global public attention regarding the issue of affordable ARVs. Regulations of the World Trade Organization had blocked the production and distribution of generic antiretroviral drugs, and international drug companies had brought a law suit against South Africa because of its intended import of generic ARVs, which it desperately needed to treat the large numbers of patients in the country. Zackie Achmat visited Thailand in October 2000 and brought back 5,000 capsules of a cheap generic ARV drug that TAC presented at a press conference. This caused international moral outrage about the high cost of treatment in light of the possibility of buying ARVs for a very low price (Jones 2009; Robins 2004). In 2001, the international pharmaceutical industry submitted to public pressure and withdrew the case (Dilger and Wolf 2006).

The support for ARV treatment by social activist movements shows a high density of internationally, transnationally, and nationally organized orders and practices in specific social sites. In the cases of TAC and other social activist movements in support of ARVs, global alliances and ties to specific people in Europe, Asia, or the United States made the movement successful. These alliances and ties are based on overlapping values and targets, particularly oriented to a change of social order. Compatible social values and aims in connection with diseases and their treatments are further factors that seem to strengthen global interventions through social activist movements.

Meanwhile, in regard to infertility, opposing social norms and values between patients and potential donors and activists make this issue less attractive to international agenda
settlers. Interventions in this field will not directly promote and trigger the type of social change envisioned by the major players in the field of global health and development.

**Medicoscapes and Therapeutic Citizenship**

The concept of biological or therapeutic citizenship has been developed as an important element of analysis in the context of the specific configuring orders and activities around HIV/AIDS summarized here. Drawing on the concepts of governmentality and biopower (Foucault 1977) and the concept of biosociality (Rabinow 1996), Petryna (2002) as well as Rose and Novas (2005) use the term “biological citizenship” to capture the double-faced situation of how people simultaneously become subjects and actors in relation to health issues: Being a citizen means subjecting oneself to an authority that grants protection and certain rights. Simultaneously, this authority demands to be recognized as such and only grants these rights on its own terms—thus it sets the rules of how to become this subject.

Looking at global health, Nguyen (2005:142) argues that in the “dialectic between a global therapeutic economy, local tactics for mobilizing resources, and the biopolitical processes through which humanitarian interventions produce particular subjectivities,” another form of citizenship—grounded on biology—emerges. Nguyen (2005:142) calls this “therapeutic citizenship” and defines it as “a form of stateless citizenship whereby claims are made on a global order on the basis of one’s biomedical condition, and responsibilities worked out in the context of local moral economies.”

Kistner argues that the term “biological citizenship” in general is paradoxical: On the one hand, it is “complicit with neoliberal governmentality; on the other hand, it is marked as an ethical project” (Kistner 2009:4). In this way, a division results into “two populations: those who are protected and those who are not” (Kistner 2009:1). Moreover, these moral claims based on therapeutic citizenship are made to a global but lawless arrangement of power, economics, cultural values, and biased understandings of treatments. Based on biological interpretation, transnationally active groups such as TAC may successfully claim patients’ rights to ARV therapy and support on a global scale, because these claims “carry more weight than those based on poverty, injustice, or structural violence” (Nguyen 2005:143).

In combination with human rights, a global solidarity and lobby may evolve, and for some ailments like AIDS, this may result in therapeutic citizenship for patients. However, in localities where the links to activist movements are weak or missing, the concept of therapeutic citizenship meets its limits. When TAC members tried to replicate its urban-based ARV program in rural sites, they faced severe challenges. Local teachers questioned the scientific knowledge and authority of youthful AIDS activists, and older people were offended by “sex talk” from young people, especially when young women spoke about sex and condom use (Robins 2009:96).

It seems that both biological as well as therapeutic citizenship are confined to specific settings described by Dilger as “islands of biopower” (Dilger 2012:74). They can only develop in the context of intervening transnational NGOs and international philanthropic organizations—orders and practices that are lacking in the case of infertility treatment in sub-Saharan Africa. In light of the contrast between global responses to AIDS and infertility, it becomes clear that therapeutic citizenship merely comprises one kind of dynamic emerging through globalization processes, while the medicoscapes approach allows us to explore and explain the emergence of distinct kinds of dynamics and their interrelation. The concept enables us to follow the ways in which orders and things, practices, organisms, and sociocultural values interact and differently combine within globalization processes, and thus
distinctly prefigure the grounds that give way to specific place-making and hierarchical power geometries around various ailments.

As HIV/AIDS meets the peace and security argument and has a biological life-threatening dimension that is regarded as superordinate to social suffering, it is able to achieve a certain global public quality. This attracts the attention of social activist movements in the West and connects activists in other regions of the world. This move is additionally facilitated by the specific values inherent in many Western social movements as well as nurtured by them. These values include promoting equity and justice and the transformation of social orders, which, in turn, enhances and increases the global quality of HIV/AIDS and the attention of the global community for supporting the accessibility of treatment by ARVs worldwide. Thus, in the case of ARVs, a powerful dynamic of connecting actors and sociocultural values and (financial) flows emerges as a globalization process.

These intersections and arrangements of actors and things, values, and practices are different in the case of infertility. The powerful logics of peace and security and the biological life-threatening aspect do not apply to this affliction, thus this health issue remains low on the global agenda and faces greater obstacles in attracting public attention and mobilizing social activist movements in the West (compare Gerrets 2012; Redfield 2012). Furthermore, the tendency of infertile couples to remain invisible to the public additionally undermines attempts to connect activities across different countries and continents. At the same time, opposing values within mainstream Western feminist groups about enhancing motherhood and using biomedical technologies results in frictions within the movement and further impedes transnational and global connections. As a result of these various conditions, no therapeutic citizenship has evolved around infertility and treatment with ARTs in sub-Saharan Africa.

**Conclusion**

In our contrasting analysis, we have shown that globalizing processes in health fields trigger different impacts on two health conditions and thus contribute to distinct forms of place- and space-making for biomedical treatments in sub-Saharan Africa. To answer the question of how globalizing processes exert these distinct influences, we tracked three key overlapping phenomena: peace and security, the subordination of the social to the biological, and a global quality.

In the case of ARTs, we show that these key characteristics are not fulfilled and that values and objectives across spaces and places to support biomedical treatment of infertility remain rather intransigent, while actors and institutions within and across places remain generally disconnected. In the case of ARVs, we delineate how these characteristics allow, on the one hand, the connection of distinct places and actors via overlapping values and objectives and, on the other hand, the creation of powerful movements and symbols. We also describe how these key forces privilege support for specific suffering such as HIV/AIDS and, by doing so, enable some people to claim therapeutic citizenship and receive treatment for a specific ailment while excluding people suffering from other afflictions (e.g., infertility), from global support for appropriate treatment.

Besides describing how these key forces prefigure global attention and economic flows on international, transnational, and national levels, we also demonstrated how tracing the continuity or discontinuity of values within social activist movements provides further insight into the factors that contribute to specific power geometries around HIV/AIDS and ARVs versus infertility and ARTs. Through these conflating processes that either link or do not link specific places, practices, and values within and across different spaces in the world,
distinct forms of place making are enacted in sub-Saharan Africa around treatment opportunities for infertility and HIV/AIDS.

Having shown that the concept of biological or therapeutic citizenship does not accurately reflect the current situation in regard to infertility and ARTs in sub-Saharan Africa, we have instead chosen to apply the concept of medicoscapes in our comparison of HIV/AIDS and infertility in global health issues. This enables to include a variety of emerging dynamics around different ailments by contrasting sociocultural values, practices, and artifacts at different social sites and their interaction with global ideas and practices. The concept of medicoscapes provides a theoretical framework and target-oriented perspective to describe and analyze the ongoing interactions on various scales by actors embedded in different sites. It gains additional analytical value by highlighting the cultural, local, and international forces and actors through its attention to temporal and spatial discontinuity.

All of these actors bring in different perspectives, targets, knowledge regimes, and sociocultural values, which may partially overlap or be incompatible with each other. These aspects become entwined through orders and practices and form the ground for hierarchical configurations in intended and unintended ways. The concept of medicoscapes overcomes geographic and cultural boundaries, enabling us to take the global scope of the issue into account but simultaneously underlining the importance of individual localities as tangible places of practices and research.

In our view, medicoscapes are useful as an umbrella concept for bringing together various trajectories of health issues on the global agenda—allowing for the analysis of specific conjunctures, the phenomena and processes that produce them, and their interrelations—from different vantage points. Thus, we use medicoscapes to focus on complex and asymmetric constellations of orders and practices in health-related fields around the world that include and exclude, enable and constrain, and channel and prefigure certain flows and specific closures of medical aid. Medicoscapes put a lens on the multiplicity of even opposing processes of globalization and their emergence in one place or site of the health field. Different configurative settings at a given historical, spatial, and sociocultural moment can be analytically approached in comparative ways through the concept of medicoscapes, thereby providing greater insight into the distinct dynamics and power relations unfolding around different ailments within globalization processes in the field of health care.

Notes

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1. So as not to confuse the reader and assist the differentiation between the two different ART treatments, we refer to assisted reproductive technologies as ART and to antiretroviral therapies as ARV.

2. Schatzki (2002) spotlights the concrete location as essential for actors and their practices. He describes it as the place where social life occurs and where cultural values are one factor of future-organizing significance.

3. The Global Fund is a public–private partnership and international financing institution consisting of governments, civil society, the private sector, and affected communities.
4. Rene Gerrets describes similar voids concerning therapeutic citizenship around malaria treatment in Tanzania and criticizes this concept as applying only to specific diseases. Peter Redfield approaches the lacking of biological citizenship with regard to sleeping sickness in Uganda on which he bases his critique.

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