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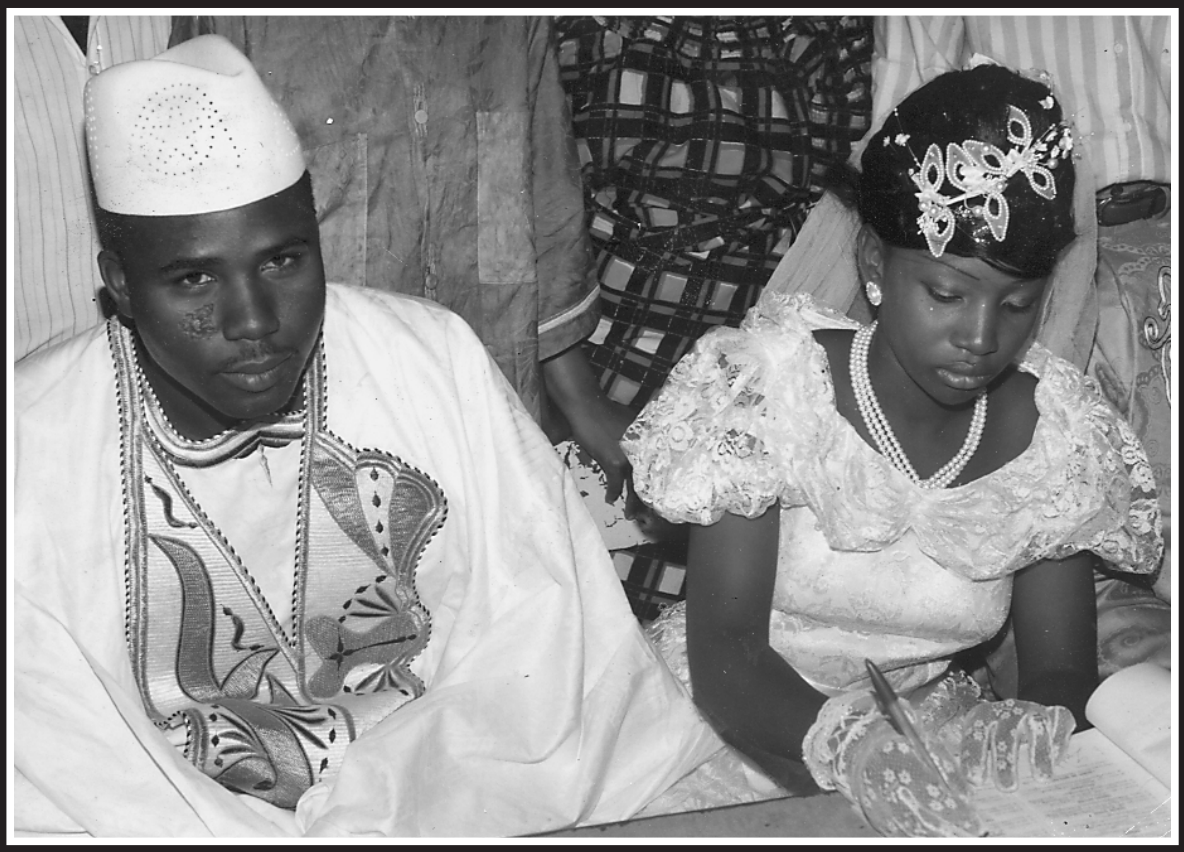

Special Theme: Reproductive Disruptions: Perspectives on African Contexts

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Berichte • Buchbesprechungen • Dokumentationen

Cover picture *curare* 29(2006)1: foto of a marriage in Mali (© SEYDOU BOUARÉ/VIOLA HÖRBST)
Marriage in sub-Saharan Africa is intimately associated with the hope for offspring. But for many sub-Saharan couples this hope will be heavily challenged or even dashed through emerging difficulties to have children. Thus we understand marriage not only to refer to the hope for fertility but also to its shady side—the threats of reproductive disruptions, which form the subject of the *curare* issue at hand. We want to dedicate this curare issue to all those women and men who allowed us insights into their personal pain and worries.
Zum Titelbild *curare* 29(2006)1: Hochzeitsfoto aus Mali (© Seydou BOUARÉ/VIOLA HÖRBST)
Hochzeit und Ehe sind im subsaharischen Afrika eng mit der Hoffnung auf Nachwuchs verknüpft. Für viele subsaharische Paare aber wird diese Hoffnung durch Schwierigkeiten Kinder zu bekommen in Frage gestellt oder gar endgültig zerschlagen. Deshalb bezieht sich Hochzeit und Ehe für uns nicht nur auf die Hoffnung auf Fruchtbarkeit, sondern auch auf deren Schattenseite – die Bedrohungen durch reproduktive Umbrüche, die Thema des vorliegenden curare-Heftes sind. Dieses *curare*-Heft möchten wir allen Frauen und Männern widmen, die uns Einblicke in ihre persönlichsten Sorgen und Schmerzen erlaubten.

***curare* 29(2006) 2+3: Migration, Medizinethnologie zu Hause und Islamische Kultur in Europa heute,** Zusammengestellt von HANSJÖRG ASSION, WOLFGANG KRAHL und EKKEHARD SCHRÖDER mit Reprints von TOMMASO MORONE: Nostalgia (Reprint aus Ethnopsychologische Mitteilungen 1994) und KALERVO OBERG: Cultural Shock: Adjustment to New Cultural Environments (Reprint 1960)

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Introduction[1]

SYLVIE SCHUSTER & VIOLA HÖRBST

Why should social scientists explore reproductive disruptions in sub-Saharan Africa? Are African women and men very preoccupied by reproductive disruptions like induced abortion, miscarriage and, in particular, infertility? Is Africa not overwhelmed by more urgent problems such as the HIV/AIDS pandemic or "hyperfertility" instead of infertility? These questions frequently come up when talking about research on reproductive disruptions in sub-Saharan Africa. On the one hand, they reflect prevailing perceptions of the public regarding the meaningfulness of reproductive disruptions in Africa, on the other hand they reflect tension and contrast existing between fertility and reproductive disruptions and between the individual human experience and the international health agenda (comp. VAN BALEN, INHORN 2002: 7).

Infertility and involuntary childlessness are considered frequently as a problem of Euro-American societies with low birth rates and a comparatively high usage of new reproductive technologies (NRT)[2]. "Between 8 and 12 percent of couples around the world have difficulty conceiving a child at some point in their lives" (REPRODUCTIVE HEALTH OUTLOOK 2006), while infertility rates estimated for sub-Saharan countries range even between 7 and 29 percent (idem 2006) being especially high in Cameroon and the Central African Republic (ROWE 1999: 104). Nevertheless, comparatively little attention has been paid to reproductive disruptions in sub-Saharan Africa by (medical) anthropologists so far. But a slight change could be noticed at the international conference on *Reproductive Disruptions: Childlessness, Adoption, and Other Reproductive Complexities* at the University of Michigan in Ann Arbor organized by Marcia C. Inhorn and the Aig-Net. Although the majority of papers presented there focused on reproductive problems in Euro-American societies many papers were dedicated to other nations, including sub-Saharan African countries[3]. One of the conference's outcomes is a volume called *Reproductive Disruptions: Gender, Technology, and Biopolitics in the New Millennium*, which contains presentations of the plenary sessions and is edited by MARCIA C. INHORN. A second collection of articles titled *Assisting Reproduction, Testing Genes: Global Encounters with New Biotechnologies*, co-edited by DAPHNA BIRENBAUM-CARMELI and MARCIA C. INHORN will be based on workshop presentations at Ann Arbor.

While still attending the conference in Ann Arbor, VIOLA HÖRBST came up with the idea to gather in a *curare* special issue all conference contributions which tackled reproductive threats in sub-Saharan Africa. In her endeavour to realize this objective, SYLVIE SCHUSTER got involved in the preparations and was invited to co-edit this special issue of *curare*. We are very grateful to all authors for their readiness to transform their conference papers to articles for this issue of *curare*. In particular we want to thank CAROLYN SARGENT who contributes parts of her plenary presentation at Ann Arbor to this issue.

The authors gathered in this volume belong to various disciplines as cultural/social anthropology, biomedicine, demography, literature and gender studies, and most of them have a long-standing experience in their field of research. Their articles interpret reproductive disruptions focusing on infertility and referring to Tanzania, Nigeria, Cameroon and Mali as well as to Malian immigrants in France. Within their contributions they shift the focus of the discussion about reproductive disruptions away from "typical Western solipsism" (VAN BALEN, INHORN 2002: 20) to problems of infertile women and men from sub-Saharan Africa. According to the topics presented, to the regional scope in this issue, and to the fact that all contributing authors, except one, have an Euro-American background, we particularly tried to consider the works of African scholars. The presented issue is meant as a step ahead to bring experiences and perspectives of sub-Saharan African women and men suffering from reproductive disruptions to a broader scholarly attention. The aim of this introduction is to provide a rough insight into main problems and research in the fields of reproductive threats in sub-Saharan Africa.

Fertility endangered: The dimension of the problem

Infertility being at the heart of the scientific discourse on reproductive disruptions is constructed in manifold ways. Infertility and other terms like sterility or childlessness are often used without being precisely defined, and moreover, the definitions of these terms may differ substantially between disciplines and even between languages (RUTSTEIN, SHAH 2004: 3). As already mentioned sub-Saharan African nations have some of the highest rates of infertility in the world (CATES *et al.* 1985; ROWE 1999; LARSEN 1995, 2000, 2001; DAAR, MERALI 2002; RUTSTEIN, SHAH 2004) with probably more than 13 million women being affected (BOERMA, MGALLA 2001: 15). Considering this high prevalence, infertility is not only an individual concern, but it is also a public health problem in sub-Saharan Africa (LARSEN 2000: 285; FELDMAN-SAVELSBERG 2002: 229; BOERMA, MGALLA 2001: 13)[4].

What are the reasons for these high infertility rates? In many sub-Saharan African countries, infertility is the result of a genital tract infection which includes sexually transmitted diseases (STDs), pelvic tuberculosis or schistosomiasis (VAYENA *et al.* 2002: xv). In addition, pregnant women harboring STDs are at increased risk of an ascending post abortion and post partum infection (LISKIN 1992:80; WHO 1998: 3). Shortcomings in diagnostics and therapy of STDs (GIWA-OSAGIE 2002: 22), poorly performed medical interventions such as abortions, Caesarian sections, deliveries and insertions of intrauterine devices (BOERMA, MGALLA 2001: 19) as well as inefficacious biomedical practices like dilatation and curettage (INHORN 2003: 1840; SUNDBY 2002: 256) worsen the problem. Furthermore, with 24.5 million people living with HIV in sub-Saharan Africa, Africa remained in 2005 the most affected continent in the world (UNAIDS 2006)[5]. It is widely recognized that HIV infection and STDs share the same co-factors (ERICKSEN, BRUNETTE 1996: 209, 214). Infertile women with the quest for conception "are much less likely" to use condoms and, therefore, "expose themselves to the risk of HIV infection" (VAN BALEN, INHORN 2002: 17). For example, in a rural area in Northwest Tanzania HIV infection rates among infertile women were about three times higher than among fertile women (BOERMA, URASSA 2001: 183).

Although some of the aspects which were mentioned above are mainly related to women, STDs lead to infertility among males as well (FOLKVORD *et al.* 2005: 239). But to date, most studies have focused on women (DYER *et al.* 2004: 960). Only few studies included male participants and, if so, mainly assessed the prevalence and etiology of male infertility (DYER *et al.* 2004: 960; IKECHEBELU *et al.* 2003). In the worldwide WHO study the most common causes of male infertility were a varicocele[6] (diagnosed in 20 % of African men), and an accessory gland infection (diagnosed in 11 % of African men) (CATES *et al.* 1985: 597). Further major male factors are azoospermia and oligospermia[7] (TORNAYE 2002: 95; IKECHEBELU 2003: 657; NIJKAM SAVAGE 1992: 908; INHORN 2003: 1839; MGALLA, BOERMA 2001: 196). Concerning prevalence CATES *et al.* (1985: 597) found that in over a third of African couples both partners were the cause of infertility, but in cases where only one partner was detected to be the cause for infertility, it was more likely to be in the woman (37 %) than in the man (8 %). However, more recent studies in Cameroon and Nigeria showed a male factor in couple infertility in 40-50 % of cases (IKECHEBELU *et al.* 2003: 657; NIJKAM SAVAGE 1992: 908). Nevertheless, in many African countries, the burden of suffering and stigma seems to rest generally on women. Therefore, exploring male infertility is a "most pressing research need for the twenty-first century" (VAN BALEN, INHORN 2002: 19)—in particular in sub-Saharan Africa.

A further neglected issue in the discourse about infertility forms induced abortion. In most sub-Saharan African countries pregnancy termination is illegal and only permitted to save a woman's live. But women's desire to control fertility with the help of abortion, in particular when they resort to unsafe practices can endanger their future fertility (see RENNE and SCHUSTER this volume). Women's wish to avoid infertility is seemingly contradictory to that, but the fear of complications could be in direct conflict with the need for an inexpensive, discreet abortion procedure (SCHUSTER 2005: 133). The significance of infertility due to post partum or post abortion infections was revealed by the worldwide epidemiological study of the WHO (CATES 1985: 598; WHO 1987: 965). This is especially true for sub-Saharan Africa and high infertility rates caused by induced abortions are assumed for Cameroon (LEKE *et al.* 1993: 75) and Nigeria (OKONOFUA

1994). Despite the high prevalence of secondary infertility and an estimated number of 3.5 million unsafe abortions in sub-Saharan Africa (WHO 2004: 13), no further considerable studies on the assumed higher risk of secondary infertility due to unsafe abortion in sub-Saharan Africa have followed yet (SCHUSTER 2002). One reason for the lack of studies might be that induced abortion is a controversial issue. Simultaneously, moral condemnation might be a factor why infertility due to illegal abortions is not handled as a public health issue (see RENNE in this volume; RENNE 1996; SCHUSTER 2004). On this background, it is often argued that prevention of infertility through prevention of STDs and unsafe abortion should be the primary goal of any strategy that seeks to reduce the impact of infertility in Africa (GERRITS 1997: 39; VAYENA *et al.* 2002: xv).

The emotional and social impact of infertility

While existing biomedical and epidemiological data on infertility underline the dimension of the problem they are limited in giving an impression on emotional, social and economic complexities of involuntary childlessness for women and men in societies which highly value children and women's childbearing. Infertility often "profoundly affects women's moral identities" (VAN BALEN, INHORN 2002: 8) showing extensive psychological and social consequences. They range from suspicion, blame, guilt, accusation (INHORN 1994: 459) and marital difficulties (BARDEN-O'FALLON 2005b), to feelings of depression, anger and guilt (BARDEN-O'FALLON 2005a: 15, 2005b), up to physical abuse of women (OKONOFUA 2003: 7) and to attempts of suicide (PEARCE 1999: 74). Infertile women might be excluded from social activities and traditional ceremonies (GERRITS 1997: 39), or the women themselves try to avoid such situations (Pearce 1999: 74; see OPARA in this volume). Finally, failure to achieve motherhood brings lack of status and low self-esteem for women (BARDEN-O'FALLON 2005a: 15; MOGOBE 2005: 28)—but as well for men (DYER *et a*l. 2004: 964).

While it is frequently perceived that children and motherhood are central to African women's gender identity, the meaning of fatherhood for African men's gender identity is mainly omitted. Only few publications (DYER *et al.* 2004; NJIKAM-SAVAGE 1992; YEBEI 2000; HÖRBST 2006a, 2006b) address the questions how sub-Saharan men experience male infertility or infertility due to their partners' inability, and how they evaluate social and emotional consequences as well as medical treatments. This is not astonishing in so far as male infertility per se "represents the great uncharted territory in the social science of infertility" as VAN BALEN and INHORN (2002: 19) put it.

As one reason for this discrepancy VAN BALEN and INHORN name the lack of male researcher in this field (VAN BALEN, INHORN 2002: 19). Another factor asserted by DYER *et al.* (2004: 966) is the impact of Euro-American gender norms, which might have obstructed researchers' view: Although gradually changing, it is still a crucial notion in most societies that "motherhood is the ultimate expression of being a woman" (GANNON *et al.* 2004: 1170)—whereas men's role as workers and providers is emphasized in masculine identities, while fatherhood forms only a marginal aspect of men's lives (GANNON *et al.* 2004: 1170). In contrast, the ability to make a woman pregnant is intimately related to masculine identity (GANNON *et al.* 2004: 1170). As found out by NACHTIGALL *et al.* (1992) in American society infertility forms a disruption to manliness in the sense of "emasculation" (DYER *et al.* 2004: 966)—a connection which is simultaneously reflected in "the common conflation of the terms impotency and infertility" in Western societies (GANNON *et al.* 2004: 1170). A fact which also plays a major role in sub-Saharan societies (comp. KIELMANN 1998: 140; HÖRBST 2006a). Male infertility, as FOLKVORD and colleagues suggest, is bypassed by sub-Saharan societies due to a "psychological denial of the problem" (FOLKVORD *et al.* 2005: 239). To date, most studies have focused on women, "probably with the understanding that in African countries women carry the main burden of infertility as they appear to be 'blamed', often solely, for a couple's childlessness", as DYER *et al.* (2004: 960) point out referring to NIJKAM SAVAGE (1992). Against that, the few articles addressing the social and emotional impact of infertility on men shed a different light on males' experiences (DYER *et al.* 2004, YEBEI 2000; HOERBST 2006a, 2006b). DYER *et al.* (2004: 960) describe how infertile men in South Africa suffer from stigmatization, verbal abuse and loss of social status. As one of their informants explained:

"When men are sitting together…some say jokingly: 'bring your wife to me, I can do it for you'. Those words are passed as a joke but when you are

on your own, thinking about all that is being said, you feel insulted." (DYER *et al.* 2004: 964).

Altogether, more information about male perspectives on infertility is fundamental in order to understand and respond to reproductive health needs of infertile couples and to better integrate men into therapeutic management of infertility (DYER *et al.* 2004: 960, 966).

Treatments available in multifaceted sub-Saharan landscapes of healing

Given the number of infertility worldwide and the social and cultural importance of parenthood in many countries, "it should come as no surprise that infertility is a leading cause of health-care seeking in many developing countries" (INHORN 2003: 1841). Often women (and men) resort simultaneously or in sequence to various forms of infertility treatment belonging to the so called traditional as well as the biomedical health care sector (OKONOFUA *et al.* 1997: 213). There are reports that biomedical practitioners are often consulted later (OKONOFUA *et al.* 1997: 213; SUNDBY 1997: 32; ROTH ALLEN 2001: 234) or less frequent (GERRITS 1997: 43), even if there has to be paid less for biomedical health care than for "traditional" interventions (GERRITS 1997: 43; OKONOFUA *et al.* 1997: 213; MOGOBE 2005: 31). As in other arenas of health care seeking, besides availability and costs (KOSTER 2003: 276ff; SUNDBY 1997: 32; GERRITS 1997: 43) the choice for providers is guided by the perceived causes of infertility as well as providers' and institutions' reputation (KIELMANN 1998: 144f).

Biomedical options for infertile couples in sub-Saharan Africa

In many parts of sub-Saharan Africa, comprehensive biomedial infertility management is lacking (see SUNDBY and LARSEN in this volume), provided means are often unsystematic and frequently end without a clear result or treatment (SUNDBY 1997: 32; SUNDBY 2002: 249; GERRITS 2002: 245). One approach to improve infertility treatment in low resource countries is to provide a "minimal package of infertility service" (SUNDBY 2002: 257) including such as STD screening and treatment, sperm tests and menstrual cycle recordings and to bring infertility diagnostic and treatment facilities up to WHO standards (see SUNDBY and LARSEN in this volume). In this context, DYER and colleagues additionally require: "Information delivery must form a key aspect of infertility management in the developing world" and together with counselling it "should be accessible even in the absence of other treatment options" (DYER *et al.* 2004: 965). SUNDBY (2002) describes further that "the great gulf between physicians and infertile patients (in terms of their social status, education, and beliefs systems) makes patient compliance with poorly explained and usually lengthy diagnostic workups and treatment protocols unlikely" (VAN BALEN, INHORN 2002: 25).

However, the first human baby resulting from in-vitro fertilization (IVF) in 1978 was one of the major advances in reproductive biomedicine. Since then, IVF has become a biomedical routine and an accepted treatment for infertility, particularly in Euro-American societies. But the first IVF baby in West Africa was delivered at the Lagos University Teaching Hospital in 1989 (GIWA-OSAGIE 2002: 54). Nevertheless, most of those who suffer from infertility live in developing countries where infertility services in general, and new reproductive technologies (NRT) in particular, are not widely available. Even in developed countries where infertility patients stand a better chance of infertility treatment, access to NRT is limited. The generally high costs of these interventions and national policies regarding accessibility and reimbursement leave many infertile people without the option of treatment[8]. For example, in Cameroon this health care procedure with a cost of 1 million CFA francs (about US$ 1700) is affordable only for a very small minority (TANGWA 2002: 57). Making NRT for infertile women and men available in developing countries inevitably leads to ethical considerations and debates on 'overpopulation' and scarce health resources. As argued by DAAR and MERALI:

"While the relevance and need for ART may be readily established, some challenge their use in developing nations. This criticism is leveled on two grounds. First, given the overpopulation problem in many developing countries, it is argued that overfertility, rather than infertility, should be the focus of family planning programs. Second, treating infertility through expensive ART cannot be justified in low resource settings where other more pressing needs must be given priority. From an analysis of the suffering that arises from infertility, these criticisms of the use of ART in developing countries can be rebutted" (DAAR, MERALI 2002: 15).

Nevertheless, on international and national agendas in developing countries priority is still given to "overpopulation" and the use of low health resources for such as the prevention of HIV/AIDS (OKONOFUA 2003: 8). These preferences might prevent that infertility is taken as a public health priority in many sub-Saharan African countries despite of the fact that infertility is highly prevalent. But the arguments of "overpopulation" and of limited resources are in sharp contrast with the requirement "that individuals should be able to reproduce 'if, when and as often they wish', as it was stated in the definition of reproductive health adopted by the United Nations' 1994 International Conference on Population and Development" (DAAR, MERALI 2002: 19). With regard to the argument of low resources, DAAR and MERALI recommend that "governmental support for nonprofit organizations may be vital in providing affordable access to infertility care" (DAAR, MERALI 2002: 20). They suggest public-private partnerships including openness to transnational collaboration to "bring in technical resources (technology, people, knowledge) at lower costs", which would make NRT more affordable and, simultaneously could render "access more just" (DAAR, MERALI 2002: 20; comp. OKONOFUA 2003). Beyond providing affordable access, the ethical problem of poorly trained practitioners should be addressed (MACKLIN 1995: 280) and the lack of regulatory mechanisms to identify dishonest or incompetent practitioners (MACKLIN 1995: 282). Additionally, TANGWA warns that "providers of ART in Africa presently operate within a legal and ethical vacuum", which may lead to "real dangers of abuse and the possibility of unregulated experimentation without any fear of consequences or repercussions" (TANGWA 2002: 58).

But what ever might be achieved, VAN BALEN and INHORN state that "it is highly unlikely that Western-based infertility treatment and new reproductive technologies will supplant indigenous ethnogynaecologies" (VAN BALEN, INHORN 2002: 25). The authors provide two reasons: First, poor distribution and lack of quality of biomedical health care around the world; and second, the limits of biomedical means to "'cure' all cases of infertility, even with the latest advances in reproductive medicine" (VAN BALEN, INHORN 2002: 25).

Dimensions of infertility causations beyond biomedical domains

African women's and men's reflections on and interpretations of fertility problems and the various ways of coping with them are encompassed by a small but growing set of research[9]. Studies of (medical) anthropologists and social scientists in general suggest that African women and men rely on various fields of references to interpret and explain infertility. Besides biomedical perspectives, it is referred to varying body concepts, to the realm of (social) relations between humans, as well as to relations between humans and non-humans (e.g., deities, God, Allah, ancestors, spirits).

The field of bodily explanations encloses notions such as a "misplaced" or unclean uterus (LEONARD 2002b: 101; KATZ, KATZ 1987: 398; KIELMANN 1998: 140; RENNE 1996: 489), particular characteristics of female eggs or lack of them (MGALLA, BOERMA 2001: 198; ROTH ALLEN 2001: 228), parasites (LEONARD 2002b: 101), or incompatibility of blood respectively "mismatching" unions (GERRITS 2002: 239; HÉRITIER 1995: 106ff; KIELMANN 1998: 141; LEONARD 2002b: 99; SARGENT 1982: 41). Also associated with infertility are painful menstruations (GERRITS 2002: 239; KATZ, KATZ 1987: 398; SAKO 1989: 36) and other menstrual disorders (RENNE 2001: 189). Whereas, "[m]en are considered infertile only when they are unable to maintain an erection and to ejaculate" (KIELMANN 1998: 140). GERRITS reports for the matrilineal Macua, Mozambique, to prove a man's future fertility the substance of sperm has to be judged: "White and thick sperm is considered to be of good quality; if it is watery, reddish, and/or warm, the man is deemed to have a disease and incapable of impregnating the girl" (GERRITS 2002: 237).

Furthermore, fear of sterilizing effects of so-called modern contraceptives is a widespread phenomenon in sub-Saharan Africa (see SCHUSTER in this volume; HÉRITIER 1995: 110; KATZ, KATZ 1987: 398; KIELMANN 1998: 145; LEONARD 2002b: 101, 104; SOBO 1993: 61ff;). For Cameroon (NIJKAM SAVAGE 1992: 908; RICHARDS 2002: 88) and Nigeria (OKONOFUA *et al.* 1997: 211; PEARCE 1999: 73) an early commencement of sexual activities is named by study participants as factor for predisposing women to infertility, as well as (repeated) resort to abortion. Fertility problems are often per-

ceived as consequences of unacceptable behaviors of women like promiscuity (KATZ, KATZ 1987: 398, KIELMANN 1998: 144), adultery (HÉRITIER 1995: 117) and the "willful uncoupling of sex, marriage, and reproduction" (LEONARD 2002b: 102). These causations are merging with moralizing discourses and negotiations of general social transformations, as explained by KIELMANN (1998: 144, 151) and LEONARD (2002b: 104).

As far as causative relations between human actors are concerned, curses pronounced by kin and in-laws can be of relevance (KATZ, KATZ 1987: 398; KIELMANN 1998: 142; LEONARD 2002b: 95; SARGENT 1982: 41f). Moreover, the enactment of occult forces (witchcraft respectively sorcery) by envious peers, in-laws or co-wives is often associated with reproductive problems (BARDEN-O'FALLON 2005a: 22; FELDMAN-SAVELSBERG 2002: 216, 1999; GERRITS 1997: 44; LEONARD 2002b: 95, 97; SARGENT 1982: 41). Within the field of relations between human and non-human actors, individual or collective spirit-possession associated with fertility problems is mentioned for Tanzania (KIELMANN 1998: 143), Mozambique (GERRITS 1997: 44) and Sudan (BODDY 1989: 167, 187). Besides, non-respect to rituals towards ancestors is described (e.g., KOSTER 2003: 276; LEONARD 2002b: 96). Further, infertility can be perceived as "chastise for omissions" or "sinning" towards ancestors or God, as MOGOBE (2005: 28) reports for Botswana. In line with these arguments are PEARCE's (1999: 76f) insights in activities of charismatic churches in Nigeria where infertility is reframed as a "private" matter between a couple and God. Moreover, Allah or God is often referred to as being the ultimate reason whether a woman or a man will procreate or not (see HÖRBST in this volume; KATZ, KATZ 1987: 398; KIELMANN 1998: 142; LEONARD 2002b: 93; MOGOBE 2005: 28).

Infertility treatments beyond biomedical domains

This variety of causations for infertility is resulting in a wide range of therapeutic interventions encompassing individual consultations of biomedical practitioners, "traditional" healers and religious experts, but also rather social forms of interventions. Concerning the latter, fertility cults have to be named in which relief of reproductive disruptions, like infertility and fetal loss, is sought (KIELMANN 1998: 139). Well-known in this field are VICTOR TURNER's (1967: 12f) studies of fertility rites among the Ndembu in Zambia. These rites are accomplished for women plagued by sterility, stillbirth and fetal loss (OFFE, KLEIN 2004: 90)[10]. Whereas fertility cults in form of rituals are often related to ancestral and spiritual agency influencing human reproduction, PEARCE (1999: 76) highlights the rise of new religious doctrines among Charismatic Christians in Nigeria, who endorse their teachings with biomedical information and encourage people to use hospitals and faith clinics, but prohibit specifically the utilization of 'traditional' practitioners (PEARCE 1999: 76). Similarly, Islamic *marabouts* in Mali forbid access to animistic methods of treatment. But to which interventions women and men suffering from infertility finally subject themselves is sometimes contradictory to religious rules and arguments expressed by different religious denominations.

With respect to herbal treatments of infertility applied by "traditional" healers, OKONOFUA *et al.* (1997: 214) display for Nigeria the use of fresh or boiled herbs (sometimes mixed with animal ingredients), which either have to be drunken, inserted into the vagina, or applied to wash the body and/or genitals. Malian "traditional' recipes and their mode of preparation are described by IMPERATO (1977: 108f.) and KOUMA (1991), the latter focusing on ingredients' chemical and botanical analysis. Although "traditional" practitioners are often distinguished in herbalists, divinators, spiritualists and religious experts, they often combine pharmaceuticals, various forms of diagnostics, as well as ritualistic and religious (animist, Islamic or Christian) modes for treatment. For example, KIELMANN describes "traditional" therapists as trained "in a variety of skills, including various divination forms, spirit exorcism, herbalism, besides preparations of medicines for diseases, marriages, love and business affairs" (KIELMANN 1998: 150). Similarly, holders of Islamic offices draw on spiritual powers of Islam by chants, prayers and protective devices, but also give herbal preparations (KIELMANN 1998: 151).

Which combination of means and knowledge will be applied in a specific case often depends on the expert's diagnosis. When a curse has been identified as a potential source of fertility problems, a reconciliation ceremony is performed, accompanied by a ritual cleansing of the woman and symbolic offerings (sugar, tea, soap, money, animals) to the rel-

ative which is believed to have generated the curse (LEONARD 2002b: 98). In case of spirit possession, women might undergo exorcism rituals which include drumming, dancing, drinking herbal teas or baths and offering prayers to the spirits as reported by GERRITS (1997: 44) for Mozambique. Referring to BRANDRUP-LUKANOW and HEIDE (1987: 192-196), HÖCK (1993: 16f) describes the proceedings of animist priests of the Akan (Ghana): directly connected to a certain deity, the fetish-priest acts as a medium through which the deity announces for each specific case, which remedy (on a herbal or anorganic basis) has to be used in combination with which spiritual correlation (sacrifices, specific taboo charges) to produce the requested results.

Biomedical and "traditional" domains in-between informal entanglement and formal cooperation

The range of therapeutic options available in sub-Saharan health care arenas has been briefly outlined. In specific cases of fertility problems, multifaceted causes (including biomedical ones) might be perceived as simultaneously being at work (comp. LEONARD 2002b: 95). Moreover, biomedical information of fertility problems might be re-interpreted, appropriated and differently merged with other domains of causality.

In addition, KIELMANN describes that non-biomedical explanations and means of treatment can be appreciated by health workers as well. As a result, they themselves might not only seek ways beyond biomedical ones in trying to solve their own fertility ailments, but also recommend "traditional" therapeutic avenues to affected women (KIELMANN 1998: 148f). POOL and WASHIJA (2001) report that aspects of biomedical knowledge are frequently integrated into "traditional" practitioners' treatments of infertility. Altogether an dynamic informal entanglement of different medical domains seems to be at work.

While the outlining of infertility's "traditional" therapeutic handling is characterized by multilayered causations underlying infertility, the discourse in literature on biomedical health care of infertility is rather critically emphasizing the efforts still to be done. Moreover, controversial perspectives like the implementation of NRT are highlighted. Nevertheless, critical questions on risks for patients caused by so called "traditional" treatments in the field of reproductive health are emphasized from a biomedical viewpoint, for example by OKONOFUA (2002). But there is a huge lack of studies in this field (WHO 1993, 2000: 1). This comes to no surprise as studies on efficacy, safety and quality of "traditional medicine" (WHO 2003) theoretically and practically represent a complex and challenging field, for they have to consider not only phytotherapeutic recipes and the like but also factors such as psychological ones or spontaneous healings (comp. KATZ, KATZ 1987: 401)[11].

While an informal entanglement of biomedical and "traditional" explanations and therapies seems to be enacted predominantly by patients and clients, formal cooperations between professionals in these fields of health care are repeatedly recommended (e.g., KATZ, KATZ 1987: 402f; OKONOFUA 1997, 2002; POOL, WASHIJA 2001: 253; SUNDBY 1997: 36). It is argued that an integration of services might provide a more holistic care and that such cooperation "may provide access and early treatment of patients who would otherwise see only traditional practitioners" (OKONOFUA *et al.* 1997: 218). With their widespread networks, high reputation and confidence among the population, "traditional" practitioners are seen as an obvious potential source of education and prevention that could be exploited for infertility management as well (POOL, WASHIJA 2001: 253). As such an integrative approach for general health issues has been promoted by the World Health Organization since the 1970s, debates in literature on conceptual problems emerging from such cooperation are plenty (e.g. BICHMANN 1987: 70ff, 1995: 45, 53; VAN DER GEEST 1985; UNSCHULD 1978: 548). However, one major problem to resolve in this context is the hierarchization of knowledge and its sequelae in practice (BICHMANN 1995: 53ff).

Social options to cope with involuntarily childlessness

Besides therapeutical options in multifaceted landscapes of healing there are also social means to ameliorate the consequences of childlessness for sub-Saharan women and men like extramarital sex, "induced adultery" (HÖRBST 2006a), polygyny and foster children. With regard to extramarital sex almost all of the women among the matrilineal Macua in Mozambique, who were interviewed in GERRITS' (1997) study, covertly committed adultery in the

hope to conceive. Sometimes they were even advised by healers to do so (GERRITS 1997: 45). Against that, MOGOBE (2005: 31) reports for Botswana that some women even encouraged their husbands to have children with other women as an ultimate possibility, like when their husbands were threatening to divorce. PEARCE (1999: 75) for Nigeria and HÖRBST (2006a) for Mali describe the possibility of discreet arrangements which might be made for a male family member to father a child with an assumed infertile man's wife. Such a "transfer of sexual rights" even to healers or priests is also reported by YEBEI (2000: 139) for Ghanaian migrants in the Netherlands. But these practices, as BARDEN-O'FALLON (2005a: 22) mentions, subject women and men to STDs which in turn can augment the danger of infertility.

Polygyny is another widespread option in many sub-Saharan countries—at least for men (see HOERBST in this volume). In some societies, as summarized by NIJKAM SAVAGE, "to avoid divorce, return of dowry or family shame of infertility, a female relative of the wife, often a sister, can be given as co-wife or just bearer of children" (NIJKAM SAVAGE 1992: 913). Moreover, in a study on male factor infertility in Cameroon, 44 % of fertile and infertile respondents recognized polygyny to be a more suitable solution than artificial insemination by donor (NIJKAM SAVAGE 1992: 911). A fact which is evaluated by the author as "an indication of traditional male refusal to accept responsibility of couple infertility, even in the face of medical evaluation" (NIJKAM SAVAGE 1992: 911).

While formal adoption arrangements between the state and the new parent(s) are negligible, child fostering is a widespreaded and accepted but very complex practice in many sub-Saharan regions (NIJKAM SAVAGE 1992: 912)[12]. Although the practice of child fostering extends far beyond questions of childlessness, it is often presented as an alternative for biological motherhood or fatherhood "that have hitherto adequately handled and cushioned the problem of infertility" (TANGWA 2002: 57). In contrast to this generalization are statements repeatedly reported by affected women, who are preoccupied that "the identity of the biological parents is never kept secret" (MOGOBE 2005: 35). Moreover,women express fears that "children could be sent back to their biological mothers" (YEBEI 2000: 139). Therefore, the question whether child fostering, "transfer of sexual rights" (YEBEI 2000: 139), and polygyny are in fact experienced by affected women and men as an alternative is of crucial importance.

Outlook on this issue

The introduction highlights a broad spectrum of biomedical treatment perspectives and debates like on NRT in Africa, multifaceted frames of reference of infertility causation and its modes of treatments, as well as experiences, social implications and options for women and men affected by fertility problems. Furthermore, this introductive overview reflects main fields as well as research interests of different disciplines concerning the shady side of reproduction in sub-Saharan Africa. Nevertheless, various challenging questions and complexities have been raised which are left open to future research. For example, the experience of male infertility and its contextual backgrounds, biomedical and social aspects of infertility subsequent to unsafe abortion or—not mentioned so far—the field of "hospital ethnography" (VAN DER GEEST, FINKLER 2004) where modes of biomedicine's cultural and social re-interpretation are explored[13].

As specific interest of (medical) anthropology and other disciplines in infertility and related issues concerning sub-Saharan Africa emerged quite recently, the small but growing field nevertheless is characterized by remarkable works and exciting results. The topics raised in the overview also hint to a wide range of thematic, social, regional, political and transnational complexities. The issue's articles refer to many of these topics, while adding new aspects and partially new directions to the field of "reproductive mishaps" (BLEDSOE 2002: 182) in sub-Saharan Africa. Due to the authors' different approaches and the articles' regional emphasis on West Africa, we organized the contributions in three different thematic but mutually connected clusters. The *first group* is centering on emotional and social impacts of reproductive disruptions experienced and analyzed from affected women's perspectives within wider socio-cultural contexts. PAMELA FELDMAN-SAVELSBERG, FLAVIEN NDONKO and SONG YANG examine the social management of disrupted reproductive goals by fetal and infant death within Bamiléké women's hometown associations, which are an essential element of social organization, particularly in urban settings of Cameroon. CHIOMA OPARA's contribution reflects her background as an African feminist and

provides a general description of women's situation, where the lack of motherhood and children form a tremendous obstacle to gain access to various social events and female associations. Besides infertile women's experiences and their appraisal of therapeutical and social options for solution in urban Mali, VIOLA HÖRBST in her article explores cultural concepts' influence on the acceptance of IVF as well as socio-cultural impacts on physicians' practice of biomedicine.

The *second cluster* of articles primarily analyzes the prevention of reproductive disruptions in a wider sense from a public health perspective. SUNDBY and LARSEN examine shortcomings of infertility services on different levels of the biomedical health care system in Moshi, northern Tanzania and make suggestions how to optimize infertility services within the limits of low resource settings. SYLVIE SCHUSTER highlights how the local response to the rumor on "sterilizing vaccines" in the Cameroon Grassfields affects public health campaigns. Moreover, this rumor interferes with the development of "anti-fertility vaccines" and political and bioethical controversies going hand in hand with this research.

Finally, the *third cluster* mainly focus on political constellations and their impacts on women's pragmatic handling and decision-making processes concerning perceived fertility threats. CAROLYN SARGENT in her article examines how public concerns and debates on "high fertility" of West African migrants in France together with French population and welfare policies shape provider-clients interactions. In particular SARGENT shows how Malian migrants' cope with these partially contradicting influences in their reproductive decision makings. However, ELISHA RENNE shows the powerful opposition and setbacks in the liberalisation of Nigerian abortion laws over the time. With a special focus on infertility RENNE emphasizes that women's access to legal abortions is essential to reduce morbidity and mortality subsequent to unsafe abortions. With a focus on women's agency entangled with social, cultural and politicals contextes, SARGENT re-joins with her contributions in this final cluster the end and the beginning of this special issue. Moreover, she draws together the key notions "meanings of difference", "workings of power" and "tensions between women's and men's reproductive agency and various structural and cultural constraints" (INHORN 2005: 3f). To these key notions the themes explored in all the articles of this issue can be subsumed. MARCIA C. INHORN put these notions center stage for the conference in Ann Arbor, "to move away from a narrow focus on either infertility or adoption to encompass a wide range of reproductive trials and tribulations" (INHORN 2005: 3). An additional aim was to bridge "the local and the global, the realm of everyday practice and international programs and policy-making" (INHORN 2005: 3).

Reproductive Disruptions, the title of the conference reflects these central aims and key notions Inhorn put forward. As the articles summoned in this volume emerged from papers presented at Ann Arbor, they reflect the intention, approach and target of this conference. By choosing the title *Reproductive Disruptions: Perspectives on African Contexts* we specifically want to refer our contribution to the aims of the conference and, in doing so, simultaneously thank the organizers for being a crucial factor in bringing forward this issue.

Notes

1. We are grateful for comments as well as proof reading to anthropologists Alexander Kellner and Arno Pascht.
2. NRT are often referred to as "assisted reproductive technologies" (ART).
3. The beginning has been made with a conference on infertility and social sciences held at the University of Amsterdam, Netherlands, in November 1999, organized by FRANK VAN BALEN and TRUDIE GERRITS. As an outcome of this conference various papers, including four on sub-Saharan regions, have been published in *Infertility around the globe. New thinking on childlessness, gender, and reproductive technologies* edited by MARCIA C. INHORN and FRANK VAN BALEN (2002). The 2nd conference on "Socio-Medical Perspective of Childlessness" was held in Goa, India, in Sept. 2002, organized by VEENA MULGAONKAR.
4. For example, biomedically infertility is defined as inability to achieve pregnancy after one year (or two) of trying to conceive a child through regular sexual intercourse (SUNDBY 2002: 248). In comparison, demographers "estimates of infertility are based on relatively long periods of exposure (5 and 7 years) because it is difficult to assess exposure, i.e. regular intercourse of non-contracepting women, in population based studies of survey data" (LARSEN 2000: 286). Even when the use of biology to make a problem out of infertility permits useful generalizations about the prevalence of problems and comparisons of the experiences of different groups according to a given standard, it doesn't leave space for the particularistic experience of women who may define problems differently, as argued by LEONARD (2002a: 199). From people's perspective infertility is often identified as a problem when their "expectations do not match their experiences" (BARDEN-O'FALLON 2005a: 20) as is the case in a Malawian village where the recognition of fertility problems is based almost entirely on a waiting time to pregnancy (i.e., two to three months) (BARDEN-O'FALLON 2005a: 20).
5. 64 % of all living people infected with HIV live in sub-Saharan Africa, whereof almost 59 % of all adults are women (UNAIDS 2006).
6. Varicocele is "a common scrotal condition characterized by

elongation and enlargement of the network of veins leaving the testis which join to form the testicular vein" (MEDTERMS 2006a).

7. According to MedTerms Azoospermia signifies "no sperm at all" in the ejaculate, while oligospermia means "fewer sperm than normal" (MedTerms 2006b).
8. Even if prevention programs are successful, in some cases (like tubal infertility secondary to infection (SCIARRA 1994: 161)) NRT represent the only way to treat infertility.
9. For example: BARDEN O'FALLON 2005a, 2005b; EBIN 1982; FELDMAN-SAVELSBERG 1994; 1999; FELDMAN-SAVELSBERG *et al*. 2000, 2002; GERRITS 1997; HÉRITIER 1995; KATZ, KATZ 1987; KIELMANN 1998; LEONARD 2002a, 2002b; PEARCE 1999; PELEIKIS 1994; ROTH ALLEN 2001; SARGENT 1982.
10. KIELMANN (1998: 139) also mentions UDVARDY's study (1990) of *kifudu* among the Giriama, Kenya, and DEVISCH's (1993) work on *khita* among the Yaka, Zaire. Furthermore, PELEIKIS (1994) describes the *kanjareen* ritual as coping strategy for fertility threats among the Jola, Guinea-Bissau, including elements of diagnostics and treatment.
11. For more information see MOERMAN 2002.
12. For more information see, for example, ALBER 2003; GOODY 1984; and BOWIE 2004.
13. Questions like how physicians "in developing countries make diagnoses, explain etiology and treat patients" and to what degree "a physician's cultural understanding shape biomedicine" (FINKLER 2004: 2037) are seldom addressed—in particular with respect to reproductive disruptions. To some extent SUNDBY and LARSEN (this volume) approach the first question, while HÖRBST (this volume) and SARGENT (this volume)—although on different levels—touch the second one directed at physicians' cultural impacts on biomedicine and its consequences in practice, a field which is a more or less undiscovered realm within the sphere of reproductive disruptions concerning sub-Saharan societies.

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