Seriously accounting for local categories: Gendered sexual orientation among "men who have sex with men" in Côte d'Ivoire

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Abstract

In most African countries, a significant proportion of "men who have sex with men" (MSM) are divided according to a spectrum of sex-role stereotypes, with some identifying themselves as more feminine and others as more masculine. These gendered roles correspond to local categories and specific terms that are rarely considered by quantitative surveys. In a telephone-based survey conducted in 2018 and 2019 among 518 MSM in Côte d'Ivoire that included several questions on sexual orientation and gender identities, we seriously accounted for local categories by investigating what we call "gendered sexual orientation" within the local identities of *woubi* and *yossi*.

According to their official definitions, *woubis* are often associated with a female gender role and a receptive sexual role, and *yossis* are typically associated with a male gender role and an insertive sexual role. However, two additional categories emerged in our study: those self-identifying as both *woubi* and *yossi* and those who identify as neither *woubi* nor *yossi*. However, the *woubi/yossi* distinction is far from clear-cut in Côte d'Ivoire because of a particular and persistent avoidance of effeminate behaviors among individuals and their partners. Overall, this study underscores how local categories of gendered sexual orientation blend with global categories to form a syncretic and plural whole.

Keywords

gendered sexual orientation, sexual orientation, gender identity, gender expression, homosexual, bisexual, heterosexual, transgender, Africa, Ivory Coast.

Introduction

Quantitative surveys of "men who have sex with men" (MSM) in Sub-Saharan Africa, nonexistent before the mid-2000s, have since multiplied. However, these surveys typically address sexual orientation in a reductive way. Few attempt to distinguish between the different components of sexual orientation, even in the most basic categories. Most surveys only address sexual orientation via a ternary scale: gay, bisexual, or heterosexual (Larmarange and Broqua to be published). They generally base their analyses on Western categories of sexuality and gender, which are, of course, being gradually applied in the rest of the world through the globalization of sexuality. However, these Western terms do not often replace pre-existing local categories. Nevertheless, to date, qualitative studies alone have focused on local categories.

In contrast to this trend, we have chosen to investigate local categories of sexuality and gender via a quantitative telephone survey, conducted in 2018/2019 among 518 MSM living in Côte d'Ivoire, to extend a ethnographic survey conducted in Abidjan since 2009 by one of the authors. In this article, following a synthesis of the literature, we explore local categories to examine how gender and sexuality are articulated in the relational construction of identities and roles among MSM in Côte d'Ivoire.

Differentiated gender roles between biologically male sex partners

In the anthropological literature, different types of same-sex relationships are classically distinguished; those based on gendered differentiation occupy essential places, both historically and across cultures (Greenberg 1988; Herdt 1997; S. O. Murray 2000). While "egalitarian" homosexuality (between partners of the same gender and generation) seems to be the dominant

norm in Western countries, same-sex relationships have been and often remain based on a gendered differentiation of partners in many parts of the world. Thus, MSM tend to fall into two broad categories, one characterized by feminine attributes and the other by masculine attributes, both of which are more or less associated with receptive and insertive roles in the context of anal penetration. This has been shown in many countries, for example, in Mexico (Carrier 1971, 1976, 1977; Prieur 1998; Carrillo 1999), Brazil (Fry 1986; Parker 1999; Mendès-Leite 2003), and Nicaragua (Lancaster 1988, 1997), among Chicanos or Latinos in the US (Almaguer 1991; Carballo-Diéguez et al. 2004), and in India (Asthana and Oostvogels 2001; Boyce 2007), Turkey (Bereket and Adam 2006), Thailand (Jackson 2009), and Barbados (D. A. B. Murray 2009). This categorization is also evident in the history of gay communities in Europe or the United States (Trumbach 1977; Chauncey 1994).

A similar polarization can be found in many countries in sub-Saharan Africa (S. O. Murray and Roscoe 1998). In Anglophone Africa, it has been documented in Kenya (Sheperd 1987), the East African coast (Amory 1998), South Africa (Donham 1998), Zimbabwe (Epprecht 2004), Namibia (Lorway 2006), Nigeria (Gaudio 2009), Tanzania (Moen et al. 2014; Shio and Moyer 2021), and Zanzibar (K. D. Thompson 2015). In Francophone African countries, gendered structures of same-sex relationships have been described in Central Africa, in Cameroon (Guéboguo 2008, 2011; Awondo 2011), in the Democratic Republic of Congo (DRC) (Hendriks 2016), and in West Africa in, for example, Mali (Broqua 2013a). These examples show the widespread presence of a gendered distinction within same-sex relationships in Africa.

In all these countries, designations of same-sex practices or persons refer to two sets of terms and categories: some are general and known to all, while others are more specific and known only to those concerned, often produced to be incomprehensible to others. Some of the generic terms used

by the general population of a country clearly reflect a gendered bipartition. For example, the term *góor-jigéen* used to refer to MSM in Senegal, literally means "man-woman" in Wolof (Niang 2010). However, it is mainly in the vocabulary specific to the social networks formed by MSM in many African cities that a gendered distinction clearly emerges. In most francophone West African countries, there are terms for sexual and social roles that refer to a gendered binary, implying a simultaneous distinction between insertive and receptive partners.

In Senegal, from which a relevant vocabulary has spread to the subregion, the Wolof terms *ubbi* (or *ibbi*) and *yoos* are, respectively, used to describe individuals who have female attributes and play a receptive sexual role, at least officially, and individuals who conform to dominant norms of masculinity and are expected to play an insertive sexual role. These two categories thus refer to both gendered roles and sexual roles. In Wolof, the term *ubbi* means "to open" and thus indicates the receptive role in a sexual act; the term *yoos* has several meanings, including "small fry," and is perhaps used in reference to small fishes. The first author to report these terms also associated them with strict sexual roles (Teunis 2001), which were contradicted by later studies that note how the labels *ubbi* and *yoos* are not strictly associated with receptive and insertive sexual positions (Gning 2013; Niang et al. 2003). However, a 2007 public health survey used *ubbi* and *yoos* as strict synonyms for passive and active partners (Ndiaye et al. 2011).

Equivalent terms, which can be rather similar, are found in other countries of the subregion,. For example, in Mali, in a relationship between two men, one is a *yossi*, that is, a male-looking man who is supposed to play the insertive role, while the other is a *qualité* (a French term meaning quality); a female-looking man who is supposed to play the receptive role (Broqua 2013a).

In Côte d'Ivoire, the country this article focuses on, the two terms found in Senegal are also used in slightly modified forms: *woubi* and *yossi*. These are the two most common words in an

extremely extensive lexicon known only by those concerned called *Woubikan* (the language of the *woubis*; *kan* meaning "language" in Bambara in Mali and in Jula in Burkina Faso and in Côte d'Ivoire). The profusion of terms in this specific language is part of a more general context of consistent linguistic inventiveness. Unlike many francophone countries, in Côte d'Ivoire, the lingua franca is French, but many other languages are also spoken, including Jula as a commercial language. Ivorian French has long been a composite language. In Abidjan, it is often mixed with Nouchi, an urban language originally invented by *ghettomen* eager to communicate without being understood, which has subsequently spread among the youth. This context explains the richness of *Woubikan*, which, following similar objectives of clandestinity, reinvented terms to denote sexual practices or organs, for example. In this language, lesbians are designated by the term *bakary* and distinguished according to their roles: feminine partners are called *troussou* and those who play male roles are *bakary yossi*.

A documentary film made in the late 1990s about sexual and gender minorities in Abidjan, *Woubi chéri* (Brooks and Bocahut 1998; see Migraine-George 2003), involves transvestites and couples composed of *woubis* and *yossis*. The film emphasizes not only the gendered division of same-sex relationships but also highlights a "transvestite" character, Barbara. Indeed, Barbara is presented as living and dressing as a woman most of the time, taking on a daily feminine social role. In a 2001 interview, she said, "Anyway, I think God did it right. If He made the *woubis*, it is because He also made the *yossis*. There is something in it for everyone" (Barbara 2001, p. 46). Barbara thus defines herself as a *woubi*. Even though not all persons in the film are transvestites, here the definition of the *woubi* is clearly on the feminine side of the spectrum, albeit in a more or less visible way. Subsequent research has confirmed the persistence of these categories through the following decades (Nguyen 2005; Thomann 2016; Thomann and Corey-Boulet 2017), although

there have been notable shifts, particularly in connection with the development of the internet (Broqua 2013b).

Despite this evidence, quantitative surveys in Côte d'Ivoire have never investigated local categories. They have, however, captured certain dimensions of sexual orientation and gender identity, which vary, depending on the authors. A survey of 601 MSM in Abidjan in 2011–2012 explored sexual orientation using the items "gay/homosexual", "bisexual", and "heterosexual". Gender identity was not addressed in the survey. However, the proportions of individuals engaging in insertive, receptive, or both anal practices have been calculated (Aho et al. 2014; Hakim et al. 2015). In 2015, an Integrated Biological Behavior Survey (IBBS) was conducted in five cities in Côte d'Ivoire (Abidjan, Agboville, Bouaké, Gagnoa, and Yamoussoukro) among 1301 MSM (Enda Santé 2016). This survey did not consider the *woubi* and *yossi* categories; rather, it questioned gender identities through this question: "How do you identify yourself in terms of gender? (According to you, do you feel more female, male or transgender?)". Seventy-four percent of respondents answered "male", 22% "female" and 4% "transgender". In articles that cited this survey (Stahlman et al. 2016; Scheim et al. 2019; Ulanja et al. 2019; Moran et al. 2020), the authors distinguished transgender women and cisgender men. Those who responded with "female" were merged with those who explicitly responded with "transgender." The authors claimed to follow the "two-step" method, which considers those persons whose assigned sex at birth differs from their self-reported gender to be transgendered.

However, unlike other cultural contexts (notably Europe and North America), where self-definition as a "woman" by people assigned male at birth refers to trans pathways, in many African countries, it is not necessarily incompatible to self-define as both "gay" or "MSM" while identifying as a "woman" when asked about gender identity. For example, in the CohMSM cohort

set up in Burkina Faso, Côte d'Ivoire, Mali, and Togo, among HIV-uninfected MSM, 16% self-identified as both "homosexual/gay" and "only male," 21% as "homosexual/gay" and "both male and female," 37% as "bisexual" and "only male," and 21% as "bisexual" and "both male and female" (Coulaud 2019, p. 128). Moreover, a 2018 study conducted by a community-based organization looked specifically at nonbinary gender expressions in four West African countries (Burkina Faso, Côte d'Ivoire, Mali, and Senegal): only 9% of the interviewees explicitly self-identified as "trangender" (Kama and Simporé 2018).

Finally, while Matthew Thomann (2016) emphasized the erasure of gender diversity by AIDS policies in Côte d'Ivoire, this same diversity was absent from his quantitative survey of internet use by MSM (Thomann et al. 2020).

Apart from those concerned with Côte d'Ivoire, quantitative surveys of MSM in Africa have rarely accounted for the local terms by which they refer to themselves. A few surveys in Kenya in 2004, 2006, and 2008 included local categories in their questionnaires (such as *basha*, *shoga*, queen, king or *kuchu*), yet these aggregated the local terms with other global categories (e.g., gay, bisexual, or transgender) without exploring them in detail (Onyango-Ouma et al. 2005; Geibel et al. 2008, 2012; Mannava et al. 2013). However, several surveys in South Africa have focused on the gender identities of MSM, assessing whether they feel male or female (Collier et al. 2015; Masvawure et al. 2015; Sandfort et al. 2015, 2016, 2018). In contrast, insertive/receptive roles are more often examined though not in detail. Yet, almost all analyses of insertive/receptive sexual roles in European/North American studies link them to gender issues (Haist and Hewitt 1974; Wegesin and Meyer-Bahlburg 2000; Moskowitz and Hart 2011; Johns et al. 2012; Pachankis et al. 2013; Dangerfield et al. 2017; Moskowitz and Roloff 2017; Ravenhill and de Visser 2018).

Data employed

The DOD-CI MSM survey is one of six surveys that were conducted as part of the ANRS 12323 DOD-CI project, the main objective of which was to study the demand for and supply of HIV and viral hepatitis testing in Côte d'Ivoire.

This study adapts the RDS (respondent-driven sampling) methodology to a telephone interview. The RDS approach (Heckathorn 2011) is commonly used for surveys of hard-to-reach populations, particularly in contexts with high discrimination. Notably, the 2015 IBBS survey also used an RDS approach (Enda Santé 2016; Scheim et al. 2019).

Eight seeds (initial participants) were selected from across Côte d'Ivoire. Their telephone numbers were obtained through various community organizations. These seeds were selected to represent the different regions of Côte d'Ivoire. The eight seeds received a text message (SMS) inviting them to call an anonymous, toll-free number established specifically for the survey. The message was written without mentioning male-to-male practices to avoid any risk of involuntary disclosure. Callers to the toll-free survey number were invited to participate in a health survey. After a survey presentation and collection of verbal consent, the eligibility criteria (male, 18 years or older, and living in Côte d'Ivoire) were verified before the questionnaire was administered. Each participant's sociodemographic characteristics and HIV testing history were collected prior to the questions regarding sexual practices. This part of the questionnaire shared characteristics with another similar survey conducted among the general population. In particular, participants were asked whether they had ever had sex in their lifetime and, if so, whether only with women, only with men, or with both men and women.

For those who reported no or female-only sexual partners, the survey ended, and participants were thanked for their time.

For those who reported at least one male partner in their lifetime, the questionnaire continued, with an additional section that included questions about their sexual orientation, gender identity, sexual practices with men, socialization with the "MSM community," and perceptions of community testing. At the end of the interview, participants were asked to refer up to three other MSM from their network to the survey. Participants received a financial incentive, via telephone credit, of 1,500 CFA (€2.29) per additional person recruited who completed the questionnaire. There was no direct compensation for participation in the survey, only for recruitment.

The data collection occurred between 25th April 2018 and 1st February 2019. In addition to the eight initial seeds, 568 people called the toll-free survey number to participate in the study, for a total of 576 individuals. Of these, 39 (6.8%) could not be reached after several calls at previously appointed times, and 3 (0.6%) did not meet the eligibility criteria. Of the 534 men who completed the questionnaire, 16 (2.8%) reported never having sex or only having sex with women and were excluded from further analysis. There were no dropouts during the completion of the questionnaires. In total, 518 MSM completed the questionnaire.

For this article, which is essentially descriptive, we chose to present the unweighted results rather than use weights, such as those proposed by Volz and Heckathorn (2008). Bivariate Chi² tests are reported in the tables simply as indicators of the magnitudes of the observed differences.

Categories used by respondents

Collection

Exploring sexual orientations and gender identities was a secondary objective of the survey. The relevant portion of the questionnaire was organized into three steps.

First, participants were asked three entirely open-ended questions: “Sexually, what terms do you use most often to talk about yourself?”; “Are there other terms you use to describe yourself?”; and “More generally, what terms do you use to refer to men in the community who have sex with men?”

Second, the respondents were asked to position themselves with respect to 24 different terms (in alphabetical order: bisexual, bottom, braised fish, *branché*, *cassette*, *dacha*, effeminate, *folle*, gay, hen, hen-rooster, heterosexual, homosexual, HSH, MSM, *pédé*, rooster, top, two-sided, transgender, *travesti*, woman, *woubi*, *yossi*) via the question, “Which of the following terms do you recognize yourself in?” The possible responses were “Yes,” “No,” or “I do not know this term.” The order of the 24 terms was random and varied from respondent to respondent.

Finally, respondents were asked to position themselves in terms of their sexual orientation and gender identity using two single-choice questions: (1) “If you had to choose between the following three categories to define yourself, which would you choose?: Gay, bisexual, or heterosexual?”; and (2) “And between the following three categories?: Man, woman or transgender?”.

Spontaneous terms

The three open-ended questions were manually processed to group the different spellings and variations of the same term or expression.

We aggregated the responses to the first two open-ended questions that asked about the terms participants use to describe themselves. We identified 229 different terms or expressions. However, 140 were cited by only one respondent, while eight were cited by at least 10% of the 518 respondents in descending order: *woubi* (49.8%), *yossi* (46.9%), *branché* (and its variations *chébran* or *chéché*, 34.2%), *gnasri/gna* (30.1%), bottom (22.2%), top (22.0%), *gromo* (or *gromoya*, 13.1%) and *gblali/gbla* (or *ligbla*, 11.2%). Of these eight terms, three are generic terms

(see Table 1) for same-sex relationships (*branché*, *gromo*, and *gnasri*), while the other five refer to a gender role and/or sexual position (*woubi*, *yossi*, bottom, top, and *gblali*), with the top two terms cited (nearly half of the sample) being *woubi* and *yossi*: 43.4% cited both, 9.8% cited only *woubi*, 6.9% cited only *yossi*, and 39.8% cited neither *woubi* nor *yossi*.

For the third open-ended question, which asked about general terms used to describe MSM, 257 different terms were identified, but four were cited by at least 10% of the respondents: *branché* (55.8%), *gromo* (18.3%), *woubi* (13.1%) and *yossi* (13.1%). Notably, the two most cited terms in this case are generic.

The terms gay, homosexual, bisexual, and heterosexual, which appear in the vast majority of quantitative surveys to measure self-reported sexual orientation, were used spontaneously by a rather small portion of our sample, either to describe themselves (5.6%, 2.3%, 2.1% and 0.2%, respectively) or to describe MSM in general (5.6%, 5.0%, 1.4% and 0.0%, respectively).

Multiple-choice questions

In this set of questions, all respondents were asked to comment on each of the 24 terms proposed. The four most cited terms (*branché*, 93%; homosexual, 86%; gay, 78%; and bisexual, 68%; see Figure 1, "all" column) refer to homosexuality in a general way. Notably, two of the most often cited terms, bisexual and gay, are not mutually exclusive.

Next, the terms *woubi*, *yossi*, bottom, and top, each of which were cited by approximately two-thirds of the respondents, refer to a gendered differentiation of roles. Here, again, it appears that these terms are not mutually exclusive: 212 of the 518 respondents (40.9%) said that they recognized themselves in both the terms *woubi* and *yossi*, 124 (23.9%) only in the term *woubi*, 121 (23.4%) only in the term *yossi*, and 61 (11.8%) in neither *woubi* nor *yossi*.

Single-choice questions

For the question with a single choice between three categories of sexual orientation, 47% of respondents chose gay, 49% bisexual, and 4% heterosexual (Table 2). For the similar question about gender identity, 62% of respondents chose man, 25% woman, and 13% transgender.

Defining gendered sexual orientation categories

These initial results show that the "classical" categories of sexual orientation (gay, bisexual, heterosexual) are rarely used spontaneously by the respondents. Moreover, these terms do not capture the gendered dimension of sexual roles, which is found in most of the local terms used spontaneously by the respondents.

In the remainder of this article, we consider self-identification through the terms *woubi* and/or *yossi* to define gendered sexual orientation categories and analyze how sexual orientation, gender identity, sexual practices, conjugality, and socialization vary according to these differentiated gender roles.

Variations by gendered sexual orientation

Sociodemographic characteristics

The *woubis* are younger than *yossis* (median age of 22 vs. 26), with the ages of *woubis & yossis* (24) and neither *woubi* nor *yossis* (23) between the two (Tables 2 and S1). This difference is reflected in employment status, where *woubis* are more likely to be students and *yossis are* more likely to be looking for work. We do not observe differences in education, marital status, religion, place of residence, or mobility.

This result regarding age leads us to an important assumption: sexual orientation is not a stable characteristic; it can evolves over time (just as it is constructed in relationships and can vary during the same period, depending on the partner). The path of many MSM undoubtedly leads to masculinization, which is also a heterosexualization; a shift toward the horizon of heterosexual marriage and parenthood for many.

In West African contexts where social relations are strongly hierarchical and particularly based on age, the vocabulary of MSM reveals a differentiation between generations that intersects with the gender criterion. Expressions sometimes exist to designate the most recent generations, which are considered different from those that preceded them; for example, a younger generation may be more daring in terms of its visibility and extravagance. In Abidjan in the 2010s, for example, these new generations were called the "new forces" (*forces nouvelles*) in reference to the armed forces of the rebellion.

Sexual orientation

Sexual orientation is understood here via three dimensions: biological sex of sexual partners, self-definition (or self-reported sexual orientation in the single-choice question), and sexual attraction (Tables 2 and S2).

The number of male sexual partners in the past 12 months does not differ, statistically, by sexual orientation. However, there are notable differences in the number of female sexual partners over the same period: 76% of *woubis* have had no female partners, compared to 48% of *woubis & yossis,* 30% of neither *woubi* nor *yossis,* and 24% of *yossis.* Similarly, *yossis* report a more significant number of female partners than other groups.

Gendered sexual orientation is also associated with self-reported sexual orientation in the 3-modality question: 72% of *woubis* report being "gay", while 73% of *yossis* report being "bisexual".

Woubis & *yossis* are approximately equally divided (50% "gay", 46% "bisexual" and 4% "heterosexual"). The neither *woubi* nor *yossis* mostly define themselves as "bisexual" (56% vs. 36% "homosexual"), though less so than the *yossis*. On the other hand, this category has the most MSM who define themselves as "heterosexual" (8%).

The same associations are observed for sexual attraction: 60% of *woubis* say they are attracted only to men, compared to 37% of *woubis* & *yossis*, 23% of neither *woubi* nor *yossis*, and 10% of *yossis.* Conversely, 23% of neither *woubi* nor *yossis*, 22% of *yossis*, 7% of *woubis* & *yossis,* and 3% of *woubis* are more attracted to women (mainly or only) than to men.

Regarding the only clear difference in sexual orientation between the *woubis* and the *yossis*, the former being more "homosexual" and the latter more "bisexual", we note that it does not radically separate the two groups.

Gender identity

Regarding gender identities (Tables 2 and S3), a clear contrast is observed between *woubis* and *yossis*. Ninety-three percent of *yossis* define themselves as "male" in the ternary question on gender, and 81% declare that they are socially perceived as "virile". For *woubis*, 42% and 21% define themselves as "female" or "transgender", respectively (i.e., 37% define themselves as "male"), 27% are socially perceived as effeminate and 47% are perceived as somewhere between virile and effeminate (i.e., 27% are perceived as virile). Regardless of sexual orientation, most respondents are sexually attracted only to masculine men, and this rate is higher among *woubis* (82%) than among *yossis* (62%, with 28% attracted to both virile and effeminate men and 10% attracted only to effeminate men).

Woubis & *yossis*' responses are intermediate in terms of self-reported gender identity in the ternary question, social perception (virile or effeminate), and sexual attraction to virile and effeminate

men. However, as to some of the gender modalities in the multiple-choice question regarding identifying terms (Figure 1), *woubis & yossis* were most likely to identify with the terms "effeminate" (70%), "woman" (49%), "*dacha*" (45%) and "transgender" (38%). This may be because the category of *woubis* & *yossis* also includes respondents who tended to answer "yes" to all or almost all items in this multiple-choice question.

Respondents in the neither *woubi* nor *yossi* category are closer to *yossis* in terms of the gender identity selected in the ternary question (77% define themselves as "man") but closer to *woubis* in terms of their sexual attraction (80% are attracted only to men), thus suggesting a pattern of "egalitarian" homosexuality or of "bromance-type" relationships (strong friendships between heterosexual men) with a sexual component.

Since the *woubi/yossi* distinction is officially based on gender, it is not surprising that it is divisive. However, it is not absolutely divisive. The majority of *yossis* define themselves as male and most *woubis* identify as female or transgender (gender identity), but the difference between the two is less clear-cut in terms of how others perceive them to be effeminate or virile (gender expression). As to attraction, both categories are predominantly attracted to virile men. The discrepancy between gender identity and gender expression among *woubis* and the shared attraction of all groups to virile men can be explained primarily by the concern for "discretion" that many share.

Sexual practices

We do not observe any difference by gendered sexual orientation regarding "symmetrical" sexual practices (Tables 2 and S4) of kissing (96% of respondents report this practice occasionally or often in the past 12 months) and mutual masturbation (68%).

Regarding "asymmetrical" sexual practices, *woubis* report performing more frequently receptive sexual practices than *yossis* – i.e., performing fellatio (90% vs. 64%), receiving anilingus (69% vs.

42%), being penetrated anally (95% vs. 40%) – and *woubis* less frequently perform insertive sexual practices than *yossis* – i.e., receiving fellatio (78% vs. 92%), performing anilingus (22% vs. 40%), and penetrating anally (45% vs. 98%). Despite these marked differences, we observe that both types of practices are common across all categories of gendered sexual orientation and that a high number of respondents report both receptive and insertive practices. *Woubis* & *yossis* and neither *woubi* nor *yossis* report intermediate practice rates, although *woubis* & *yossis* appear to be slightly closer to *woubis* and neither are closer to *yossis*.

The rates of sexual practices differ by gendered sexual orientation in the expected direction of heterocentric gender norms: *woubis* are more often penetrated than *yossis*. However, again, this is by no means exclusive, and the high rate of both insertive and receptive practices in all groups is striking; it clearly precludes considering gendered sexual orientation as equivalent to sexual role.

Conjugality

While the proportion of respondents in a couple with a man does not differ by gendered sexual orientation (approximately half the sample), only 15% of *woubis* are in a couple with a woman, compared to 55% of *yossis* (29% for *woubis* & *yossis* and 30% for neither *woubi* nor *yossi*; see Tables 2 and S5).

Regardless of gendered sexual orientation, less than 1% of the surveyed MSM are already married. However, less than one-sixth plan to remain single in the future. While the majority (58%) plan to marry a woman eventually, one-quarter would consider legally marrying a man if possible, with a large disparity by sexual orientation: from 38% for *woubis* to 15% for *yossis*.

This result indicates, regarding the sex of sexual partners, a difference according to gendered sexual orientation. The question about the possibility of marriage with a man enriches the concept of sexual orientation: it is defined not only by the present situation but also by a projection into the

future. From this perspective, the idea of formalizing a same-sex marital relationship differs according to gendered sexual orientation.

Socialization

In terms of socialization within the "milieu" (Tables 2 and S6), the neither *woubi* nor *yossi* category differs from the other three, which are more homogeneous: neither *woubis* nor *yossis* frequent MSM bars or clubs less (26% vs. 49–56%), are less likely to know of an MSM association (21% vs. 41–50%), know little about the term "milieu" (36% vs. 55–63%), have fewer effeminate friends (57% vs. 77–94%), and have met fewer MSM friends via the internet (59% vs. 70–81%).

Even so, the vast majority of neither *woubis* nor *yossis* (89%) have MSM friends, as do *yossis* (89%), but both categories have slightly fewer MSM friends than *woubis* & *yossis* (96%) and *woubis (98%*).

The intertwining of gender and sexuality

Through these different results, we can observe a distinction between the categories of *woubi* and *yossi* that is based on both gender and sexual roles. It also appears that gendered sexual orientation is a dimension in its own right: the *woubi/yossi* distinction is not superimposed on any of the traditional axes of gay/straight, male/female, or top/bottom. When the ternary variable on sexual orientation is crossed with the ternary variable on gender identity (Table 3), only one-fifth (21%) of the MSM surveyed declare themselves to be "gay men," regardless of their sexual orientation. The majority of *yossis* and neither *woubis* nor *yossis* define themselves as "bisexual men" (69% and 49%, respectively), and *woubis* define themselves as "gay women" (35%) or "gay transgender" (16%). While the majority of *woubis* and *yossis* define themselves as "bisexual men"

(31%) or "gay women" (23%), they are also the groups that most frequently define themselves as "bisexual women" (8%) and "bisexual transgender" (7%).

This underscores the importance of taking local categories seriously. However, they cannot be taken at face value; there is a discrepancy between the "official" definitions of categories and people's positions, practices, or roles, which are much more fluid and varied. The *woubi/yossi* duality can be seen as a kind of official ideology of gendered sexual orientation. It assumes both distinction and complementarity between the two categories, and all modeled on a heterocentric model. While the results suggest a certain polarization, it is relative and does not affect all indicators. This can be seen, in particular, in the articulation between the two aspects that are supposed to constitute the *woubi/yossi* division, i.e., the definition of gendered sexual orientation: sexual practices and gender identity.

While almost all *woubis* say they have receptive anal sex and almost all *yossis* say they have insertive anal sex, 45% of *woubis* report insertive anal sex and 40% of *yossis* report receptive anal sex. These practices may occur in the context of a couple's secret intimacy, most often composed and perceived by an outside eye as comprising a *woubi* and a *yossi*, but in other cases, they involve a dissociation between different types of partners. Thus, officially "top" men in their "community" are sometimes clandestinely "bottoms" with their unofficial partners. As Thomas Hendriks notes, in the case of the DRC, "*the hegemonic notions of sexual 'activity' and 'passivity*' [are] *particularly unstable markers of erotic belonging*" (Hendriks 2016). These discrepancies between official definition and private practice sometimes generate tension. For example, one often hears from *woubis* that there is no longer a true *yossi*, which is why *woubis* may instead seek to "*castoriser*" (convert) heterosexuals. There is a strong rejection of nonexclusive *yossis* by many *woubis*: both because they are seen as not conforming to dominant norms of masculinity and

because they have become competitors in a sexual exchange market where effeminate *woubis* are increasingly avoided.

Indeed, if some *woubis* deplore the fact that there is no longer any real *yossi*, the inverse is not true. Rather, there is a paradoxical symmetry, as the effeminacy of *woubis* is often shunned. Ethnography (especially digital ethnography) reveals the prevalence of the figure of the "passive uneffeminate", often found on internet dating sites, both among those who present themselves in this way and those who say they are looking for such a figure (Broqua 2013b). This type of figure indicates an overwhelming desire for "discretion": a noneffeminate man is a man who is not identifiable as gay. However, at the same time, it suggests, as the attraction to a virile man in our survey shows, a certain deviation of the laws of sexual desire from the official definition of gendered orientation: two men of masculine appearance may be attracted to one another and mate. This reflects a probable evolution: over time, the concern for discretion has accompanied and undoubtedly reinforced a transformation of the logic of erotic attraction.

Accordingly, we should note the determinist role of the internet and, more recently, of dating applications. The use of websites implies defining oneself from the perspective of sexual orientation by using global categories such as "gay", "bisexual", and "transgender". On these dating sites, the local categories of *woubi*, *yossi* and even *branché* are erased. Very often, on the profiles and in the discussions, the emphasis is on the presentation of sexual roles, employing the opposition between "top" and "bottom", which does not necessarily overlap with gender roles (as we have seen, a *woubi* can be a top, and vice versa). The requirement to categorize oneself using global categories has produced a transformation in how one defines one's sexual orientation. Thus, a conception in terms of sexual roles has gradually replaced a gendered conception. The gender

categories of *woubi* and *yossi* are now superimposed on the categories of top and bottom, partly imported from the internet. The gendered role is gradually fading away in favor of the sexual role. Furthermore, our results highlight the ambiguous space occupied by the category of "transgender". In the open-ended questions listing the spontaneous terms respondents use to describe themselves, only three people answered "transgender," and 13 answered "*travesti*." In contrast, in the multiple choice question, 109 (21%) identified themselves as "transgender" and 152 (29%) as "*travesti*." Similarly, on the ternary gender question, where respondents were asked to choose between "man," "woman," and "transgender," 65 (12%) defined themselves as "transgender." In addition, the vast majority of MSM who defined themselves as "transgender" also defined themselves as "gay" (Table 3).

Given the limited occurrence of the term "transgender" in the open-ended questions, the lack of a term that would act as a synonym in the Ivorian context, and the relatively high presence of "transgender" in the multiple-choice questions, it follows that the definition of the category "transgender" is not well known and understood by most of the respondents; rather, it seems to be considered a generic form of gender inversion. Our results align with Kama and Simporé's finding that "only 9% of interviewees identify as Trans*. In contrast, the majority of respondents affirm themselves in a gender different from that assigned at birth" (2018, p. 41).

As noted above, in several quantitative surveys in Africa, respondents who answered "woman" to a question on gender identity were merged with those who answered "transgender" (Larmarange and Broqua to be published), producing a normalizing effect of social control on gender minorities (H. Thompson and King 2015). Our results suggest that respondents' understanding and use of the category "transgender" contradicts this logic; "transgender" seems to be, rather, a kind of subcategory of *woubis*. This is an instructive example of how categories that are being created

externally are imported, given that specific mobilizations are developing in Abidjan in ways similar to other metropolises in Francophone Africa.

Finally, we underscore the "neither *woubi* nor *yossi*" category, which also bears the mark of a social change. Given the different results, it seems that "neither *woubi* nor *yossi*" encompasses two types of profiles. One is that of men who are not socialized as *branché* and do not know the terms *woubi* or *yossi* or do not refer to them because they are closer to the "heterosexual" category in terms of their practices, identities, or lifestyles. They correspond well to the category of men whom the *woubis* call *yossis* but who do not use the term themselves. This component opens up an often hidden world for researchers; that of the men who are furthest from the "community", which quantitative RDS approaches have difficulty recruiting. The "neither *woubi* nor *yossi*" category also includes a profile that is possibly less integrated into the "community" yet is undoubtedly familiar with the representations of homosexuality offered by the Western media, social networks, and dating sites or applications. This profile corresponds, contrary to the first type of "neither *woubi* nor *yossi*" and differently from the respondents who use the terms *woubi* or *yossi*, to a definition approaching homosexuality in a more Western sense of the term; i.e., responding to the supposedly "egalitarian" model, which, therefore, progressively moves away from the *woubi/yossi* model and its gender differentiations.

Conclusion

The results of our survey highlight the need to account for local categories in surveys of sexual and gender minorities in Africa. This is necessary not only from a scientific point of view but also from a political point of view. Kama and Simporé thus call for "a certain caution in the use of terms and categories to which we must adhere. Indeed, community organizations in Francophone

West Africa, like their African peers, should in their missions work to construct their own specificities, rather than using terms and concepts produced elsewhere in a particular sense with no real connection to the local context" (Kama and Simporé 2018, p. 41).

Two main lessons can be drawn from the results of our survey and our discussion. First, it is clear that same-sex practices/relationships/identities must be considered in relation to the question of gender. Sexual orientation is clearly structured by gendered differentiation. However, – this is the second lesson – this structuring evolves over time, toward a hybrid model. Local categories and global categories of sexuality and gender coexist and mix in composite forms. Indeed, there has been a gradual imposition of global categories, but it would be wrong to suggest that this has led to a gradual shift from a model based on gendered differentiation to a supposedly "egalitarian" model. The gendered dimension persists, just as it remains in Western societies (Valocchi 2012). In the Ivorian context, gender roles (*woubi/yossi*) are articulated with sexual roles (top/bottom), which are increasingly important for defining gendered sexual orientations.

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Declarations

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Conflicts of interest

The authors declare that they have no conflicts of interest.

Ethical Approval

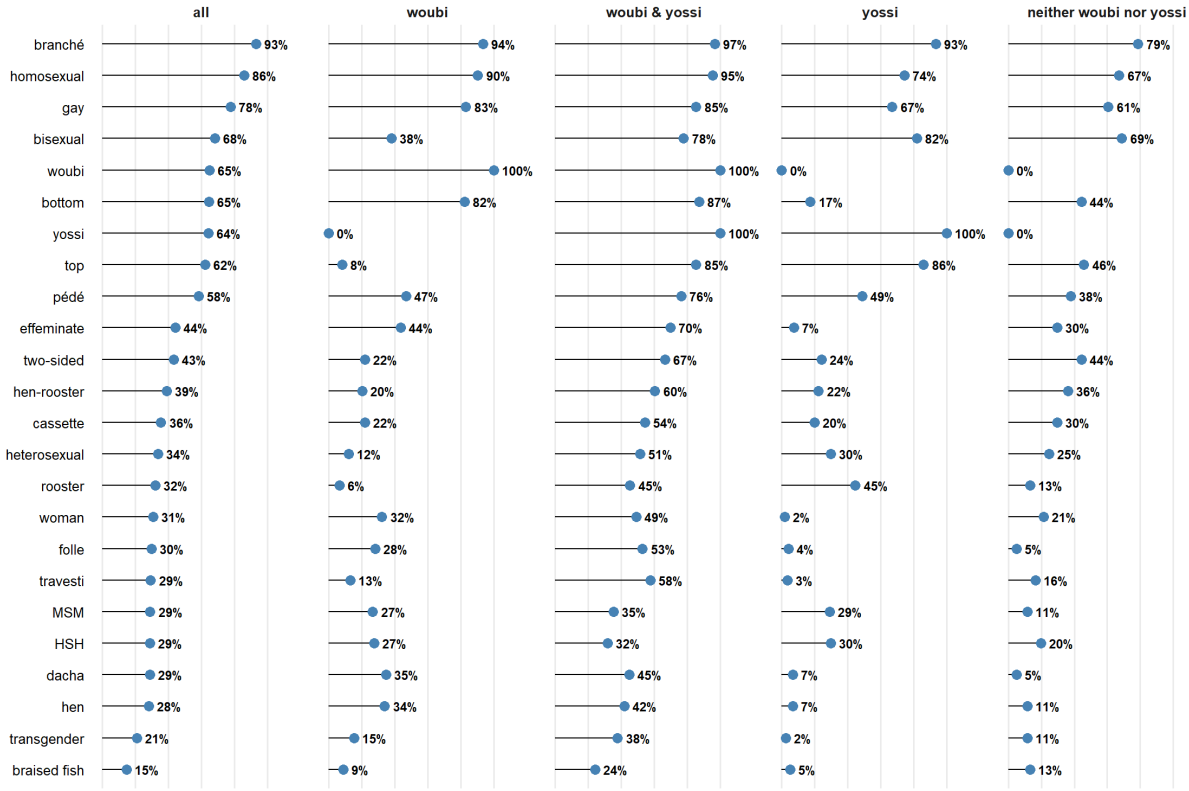
All procedures performed in the study were in accordance with the ethical standards of the National Research Ethics Committee of Côte d'Ivoire (N/Ref: 058/MSHP/CNER-kp) and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Informed Consent

Informed consent was obtained from all individual participants included in the study.

Figures

Figure 1. Terms respondents identified with, by whether they cited *woubi* and/or *yossi*, 2018 DOD-CI MSM survey



Tables

Table 1. Classification of specific terms, according to whether they refer to a receptive/insertive and/or female/male role

Generalist term	Receptive/Female role	Receptive & Insertive/Female & Male role	Insertive/Male role
• Bisexual (*bisexuel*) • *Branché*† (hip) • *Gnasri/Gna*† (to have sex, "to fuck") • *Gromo*† (contraction of *gros mot*, swearword in French, used as a synonymous of *branché*) • Gay (*gay)* • Heterosexual (*hétérosexuel*) • Homosexual (in French *homosexuel* is not pejorative) • HSH (*hommes qui ont des rapports sexuels avec des hommes*, French version of MSM) • MSM (men who have sex with men) • *Pédé* (faggot, queer)	• Bottom (*passif*) • *Dacha*† ("effeminate chic") • Effeminate (*efféminé*) • Woman (*femme*) • *Folle* (effeminate gay man, "queen") • Hen† (*poule*) • Transgender (*transgenre*) • *Travesti* (Transvestite) • *Woubi*†	• Braised fish† (*poisson braisé*, referring to the fact that a fish is turned over during cooking) • *Cassette*† (audiotape, referring to being two-sided) • Hen-Rooster† (*poule-coq*) • Two-sided† (*recto-verso*)	• *Gblali*† (penis) • Rooster† (*coq*) • Top (*actif*) • *Yossi*†

† Term used/known with this meaning only by people from the MSM community.

Table 2. Sociodemographic characteristics, sexual orientation, gender identity, sexual practices, conjugality, and socialization, by gendered sexual orientation, DOD-CI MSM survey, Côte d'Ivoire, 2018

	woubi (n=124)	***woubi* & yossi** (n=212)	***yossi*** (n=121)	**neither *woubi* nor *yossi*** (n=61)	**total** (n=518)	**p** (Chi² test)
Sociodemographic characteristics						
Median age in years (IQR)	22.5 (20.8–26.0)	24.0 (22.0–27.2)	26.0 (23.0–28.0)	23.0 (21.0–26.0)	24.0 (22.0–27.0)	<0.001†
Education level						>0.9
primary/none/do not know	8.1%	7.1%	7.4%	6.6%	7.3%	
secondary	59.7%	56.1%	52.9%	52.5%	55.8%	
university	32.3%	36.8%	39.7%	41.0%	36.9%	
Professional situation						0.002
currently works	28.2%	22.2%	24.0%	27.9%	24.7%	
looking for a job	25.0%	40.1%	48.8%	24.6%	36.7%	
student	46.8%	37.7%	27.3%	47.5%	38.6%	
Sexual orientation						
At least one female partner in the past 12 months	24.2%	52.4%	76.0%	70.5%	53.3%	<0.001
Self-reported sexual orientation (single-choice question)						<0.001
gay	71.8%	50.5%	22.3%	36.1%	47.3%	
bisexual	25.8%	45.8%	72.7%	55.7%	48.5%	
heterosexual	2.4%	3.8%	5.0%	8.2%	4.2%	
Sexual attraction						<0.001
only to men	59.7%	36.8%	9.9%	23.0%	34.4%	
mainly to men but also to women	27.4%	31.6%	31.4%	24.6%	29.7%	
to both men and women	9.7%	25.0%	37.2%	29.5%	24.7%	
mainly to women but also to men	3.2%	6.1%	19.0%	21.3%	10.2%	
only to women	0.0%	0.5%	2.5%	1.6%	1.0%	
Gender identity						
Self-reported gender identity (single-choice question)						<0.001
man	37.1%	55.2%	92.6%	77.0%	62.2%	
woman	41.9%	32.1%	1.7%	13.1%	25.1%	
transgender	21.0%	12.7%	5.8%	9.8%	12.7%	
Socially perceived as...						<0.001
virile	26.6%	45.8%	81.0%	57.4%	50.8%	
effeminate	26.6%	15.6%	2.5%	11.5%	14.7%	
in between	46.8%	38.7%	16.5%	31.1%	34.6%	

	woubi (n=124)	***woubi* & yossi** (n=212)	***yossi*** (n=121)	**neither *woubi* nor *yossi*** (n=61)	**total** (n=518)	**p** (Chi² test)
Attraction to effeminate/virile people						0.009
only to effeminate people	7.3%	9.9%	9.9%	6.6%	8.9%	
to both effeminate and virile people	10.5%	21.2%	28.1%	13.1%	19.3%	
only to virile men	82.3%	68.9%	62.0%	80.3%	71.8%	
Sexual practices						
Kissing						0.3
never	1.6%	4.2%	7.4%	4.9%	4.4%	
occasionally	25.0%	31.1%	24.0%	27.9%	27.6%	
often	73.4%	64.6%	68.6%	67.2%	68.0%	
Insertive anal sex						<0.001
never	54.8%	25.5%	1.7%	16.4%	25.9%	
occasionally	27.4%	27.8%	26.4%	32.8%	28.0%	
often	17.7%	46.7%	71.9%	50.8%	46.1%	
Receptive anal sex						<0.001
never	4.8%	22.2%	63.6%	34.4%	29.2%	
occasionally	16.9%	19.3%	19.0%	26.2%	19.5%	
often	78.2%	58.5%	17.4%	39.3%	51.4%	
Conjugality						
In couple with a woman	15.3%	28.8%	54.5%	29.5%	31.7%	<0.001
In couple with a man	53.2%	51.9%	53.7%	44.3%	51.7%	0.6
In the future, plans to						0.003
marry a woman	48.4%	53.8%	69.4%	67.2%	57.7%	
legally marry a man	37.9%	25.0%	14.9%	16.4%	24.7%	
stay single	12.9%	20.3%	14.9%	16.4%	16.8%	
(is already married)	0.8%	0.9%	0.8%	0.0%	0.8%	
Socialization						
Frequents MSM bars or clubs	56.5%	48.6%	52.9%	26.2%	48.8%	0.001
Knows of MSM associations	41.1%	43.9%	50.4%	21.3%	42.1%	0.002
Knows the term *milieu* (MSM community)	54.8%	62.7%	60.3%	36.1%	57.1%	0.002
Has effeminate friends	93.5%	88.2%	76.9%	57.4%	83.2%	<0.001
Has MSM friends	98.4%	96.2%	89.3%	88.5%	94.2%	0.002
Met MSM friends on the internet	81.5%	75.5%	70.2%	59.0%	73.7%	0.008

† Kruskal-Wallis test. See Tables S1 through S6 for more detailed results.
IQR: interquartile range

Table 3. Cross-tabulation of self-reported sexual orientation and self-reported gender identity, by gendered sexual orientation, DOD-CI MSM survey, Côte d'Ivoire, 2018

	woubi (n=124)	***woubi* & yossi** (n=212)	***yossi*** (n=121)	**neither *woubi* nor *yossi*** (n=61)	**total** (n=518)	**p** (Chi² test)
Self-reported gender identity & Self-reported sexual orientation						<0.001
Man & Gay	20.2%	22.2%	20.7%	21.3%	21.2%	
Man & Bisexual	15.3%	31.1%	68.6%	49.2%	38.2%	
Man & Heterosexual	1.6%	1.9%	3.3%	6.6%	2.7%	
Woman & Gay	35.5%	23.1%	0.8%	13.1%	19.7%	
Woman & Bisexual	6.5%	7.5%	0.8%	0.0%	4.8%	
Woman & Heterosexual	0.0%	1.4%	0.0%	0.0%	0.6%	
Transgender & Gay	16.1%	5.2%	0.8%	1.6%	6.4%	
Transgender & Bisexual	4.0%	7.1%	3.3%	6.6%	5.4%	
Transgender & Heterosexual	0.8%	0.5%	1.7%	1.6%	1.0%	

Supplementary Material

Table S1. Sociodemographic characteristics, by gendered sexual orientation, DOD-CI MSM survey, Côte d'Ivoire, 2018

	woubi (n=124)	***woubi* & yossi** (n=212)	***yossi*** (n=121)	**neither *woubi* nor *yossi*** (n=61)	**total** (n=518)	**p** (Chi² test)
Age						0.005
18–19 years old	14.5%	8.0%	4.1%	14.8%	9.5%	
20–24 years old	47.6%	44.3%	35.5%	52.5%	44.0%	
25–34 years old	34.7%	44.8%	56.2%	27.9%	43.1%	
35 and over	3.2%	2.8%	4.1%	4.9%	3.5%	
Education level						>0.9
primary/none/do not know	8.1%	7.1%	7.4%	6.6%	7.3%	
secondary	59.7%	56.1%	52.9%	52.5%	55.8%	
university	32.3%	36.8%	39.7%	41.0%	36.9%	
Professional situation						0.002
works	28.2%	22.2%	24.0%	27.9%	24.7%	
looking for a job	25.0%	40.1%	48.8%	24.6%	36.7%	
student	46.8%	37.7%	27.3%	47.5%	38.6%	
Marital Status						0.6
single	92.7%	92.0%	96.7%	96.7%	93.8%	
married (formal or traditional)	0.8%	0.9%	0.8%	0.0%	0.8%	
lives in a union	6.5%	7.1%	2.5%	3.3%	5.4%	
Place of residence						0.5
Abidjan	64.5%	60.4%	64.5%	67.2%	63.1%	
inland department, mainly urban	21.8%	18.9%	14.0%	18.0%	18.3%	
inland department, mainly rural	13.7%	20.8%	21.5%	14.8%	18.5%	
Religion						0.7
Muslim	25.8%	17.5%	22.3%	18.0%	20.7%	
Catholic	41.9%	48.1%	38.8%	44.3%	44.0%	
evangelical	23.4%	24.5%	25.6%	27.9%	24.9%	
other religion/no religion	8.9%	9.9%	13.2%	9.8%	10.4%	
Importance of religion						0.018
very important	79.0%	67.5%	76.0%	73.8%	73.0%	
quite important	14.5%	22.6%	12.4%	18.0%	17.8%	
not very important/do not know	2.4%	7.5%	3.3%	6.6%	5.2%	
missing	4.0%	2.4%	8.3%	1.6%	4.1%	

	woubi (n=124)	***woubi* & yossi** (n=212)	***yossi*** (n=121)	**neither of the two** (n=61)	**total** (n=518)	**p** (Chi² test)
Self-perceived wealth						0.5
comfortable	16.1%	17.9%	14.0%	23.0%	17.2%	
sufficient income	37.1%	29.7%	38.0%	31.1%	33.6%	
poor or very poor	46.8%	52.4%	47.9%	45.9%	49.2%	
Mobility in the last 12 months						0.7
none/local	33.9%	36.8%	29.8%	41.0%	34.9%	
national	54.8%	48.6%	55.4%	47.5%	51.5%	
international	11.3%	14.6%	14.9%	11.5%	13.5%	

Table S2. Sexual orientation variables, by gendered sexual orientation, DOD-CI MSM survey, Côte d'Ivoire, 2018

	woubi (n=124)	***woubi* & yossi** (n=212)	***yossi*** (n=121)	**neither *woubi* nor *yossi*** (n=61)	**total** (n=518)	**p** (Chi² test)
Male sexual partners in the past 12 months						0.6
0–1	25.0%	15.1%	21.5%	26.2%	20.3%	
2	20.2%	22.2%	18.2%	23.0%	20.8%	
3–4	25.8%	23.6%	24.8%	24.6%	24.5%	
5–9	18.5%	23.6%	22.3%	14.8%	21.0%	
10 or more	10.5%	14.6%	13.2%	11.5%	12.9%	
Missing	0.0%	0.9%	0.0%	0.0%	0.4%	
Female sexual partners in the last 12 months						<0.001
0	75.8%	47.6%	24.0%	29.5%	46.7%	
1	12.9%	16.5%	23.1%	26.2%	18.3%	
2	4.8%	14.6%	18.2%	21.3%	13.9%	
3–4	4.8%	13.7%	19.8%	8.2%	12.4%	
5 or more	1.6%	7.5%	14.9%	14.8%	8.7%	
Self-reported sexual orientation (single choice question)						<0.001
gay	71.8%	50.5%	22.3%	36.1%	47.3%	
bisexual	25.8%	45.8%	72.7%	55.7%	48.5%	
heterosexual	2.4%	3.8%	5.0%	8.2%	4.2%	
Sexual attraction						<0.001
only to men	59.7%	36.8%	9.9%	23.0%	34.4%	
mainly to men but also to women	27.4%	31.6%	31.4%	24.6%	29.7%	
to both men and women	9.7%	25.0%	37.2%	29.5%	24.7%	
mainly to women but also to men	3.2%	6.1%	19.0%	21.3%	10.2%	
only to women	0.0%	0.5%	2.5%	1.6%	1.0%	

Table S3. Gender identity variables, by gendered sexual orientation, DOD-CI MSM survey, Côte d'Ivoire, 2018

	woubi (n=124)	***woubi* & yossi** (n=212)	***yossi*** (n=121)	**neither *woubi* nor *yossi*** (n=61)	**total** (n=518)	**p** (Chi² test)
Self-reported gender identity (single choice question)						<0.001
man	37.1%	55.2%	92.6%	77.0%	62.2%	
woman	41.9%	32.1%	1.7%	13.1%	25.1%	
transgender	21.0%	12.7%	5.8%	9.8%	12.7%	
Socially perceived as						<0.001
virile	26.6%	45.8%	81.0%	57.4%	50.8%	
effeminate	26.6%	15.6%	2.5%	11.5%	14.7%	
in-between	46.8%	38.7%	16.5%	31.1%	34.6%	
Attraction to effeminate/virile people						0.009
only to effeminate people	7.3%	9.9%	9.9%	6.6%	8.9%	
to both effeminate and virile people	10.5%	21.2%	28.1%	13.1%	19.3%	
only to virile men	82.3%	68.9%	62.0%	80.3%	71.8%	
Self-identify as effeminate						<0.001
yes	43.5%	69.8%	7.4%	29.5%	44.2%	
no	56.5%	30.2%	92.6%	70.5%	55.8%	
Self-identify as a woman						<0.001
yes	32.3%	49.1%	1.7%	21.3%	30.7%	
no	67.7%	50.9%	98.3%	78.7%	69.3%	
Self-identify as transgender						<0.001
yes	15.3%	37.7%	2.5%	11.5%	21.0%	
no	84.7%	62.3%	97.5%	88.5%	79.0%	

Table S4. Sexual practices in the past 12 months, by gendered sexual orientation, DOD-CI MSM survey, Côte d'Ivoire, 2018

	woubi (n=124)	***woubi* & yossi** (n=212)	***yossi*** (n=121)	**neither *woubi* nor *yossi*** (n=61)	**total** (n=518)	**P** (Chi² test)
Kissing						0.3
never	1.6%	4.2%	7.4%	4.9%	4.4%	
occasionally	25.0%	31.1%	24.0%	27.9%	27.6%	
often	73.4%	64.6%	68.6%	67.2%	68.0%	
Mutual masturbation						0.7
never	33.1%	29.2%	32.2%	36.1%	31.7%	
occasionally	25.8%	30.7%	24.0%	19.7%	26.6%	
often	41.1%	40.1%	43.8%	44.3%	41.7%	
Receptive oral-penile sex						<0.001
never	9.7%	19.3%	38.0%	36.1%	23.4%	
occasionally	30.6%	31.6%	26.4%	23.0%	29.2%	
often	59.7%	49.1%	35.5%	41.0%	47.5%	
Insertive oral-penile sex						0.005
never	22.6%	14.2%	7.4%	11.5%	14.3%	
occasionally	33.9%	33.5%	27.3%	41.0%	33.0%	
often	43.5%	52.4%	65.3%	47.5%	52.7%	
Insertive oral-anal sex						0.034
never	77.4%	62.3%	60.3%	77.0%	67.2%	
occasionally	10.5%	17.9%	19.8%	11.5%	15.8%	
often	12.1%	19.8%	19.8%	11.5%	17.0%	
Receptive oral-anal sex						<0.001
never	30.6%	34.0%	57.9%	54.1%	41.1%	
occasionally	29.0%	27.4%	21.5%	24.6%	26.1%	
often	40.3%	38.7%	20.7%	21.3%	32.8%	
Insertive anal sex						<0.001
never	54.8%	25.5%	1.7%	16.4%	25.9%	
occasionally	27.4%	27.8%	26.4%	32.8%	28.0%	
often	17.7%	46.7%	71.9%	50.8%	46.1%	
Receptive anal sex						<0.001
never	4.8%	22.2%	63.6%	34.4%	29.2%	
occasionally	16.9%	19.3%	19.0%	26.2%	19.5%	
often	78.2%	58.5%	17.4%	39.3%	51.4%	

Table S5. Conjugality by gendered sexual orientation, DOD-CI MSM survey, Côte d'Ivoire, 2018

	woubi (n=124)	***woubi* & yossi** (n=212)	***yossi*** (n=121)	**neither *woubi* nor *yossi*** (n=61)	**total** (n=518)	**P** (Chi² test)
In couple, with a woman						<0.001
yes	15.3%	28.8%	54.5%	29.5%	31.7%	
no	84.7%	71.2%	45.5%	70.5%	68.3%	
In couple, with a man						0.6
yes	53.2%	51.9%	53.7%	44.3%	51.7%	
no	46.8%	48.1%	46.3%	55.7%	48.3%	
In the future, plans to						0.003
marry a woman	48.4%	53.8%	69.4%	67.2%	57.7%	
legally marry a man	37.9%	25.0%	14.9%	16.4%	24.7%	
stay single	12.9%	20.3%	14.9%	16.4%	16.8%	
(is already married)	0.8%	0.9%	0.8%	0.0%	0.8%	

Table S6. Socialization, by gendered sexual orientation, DOD-CI MSM survey, Côte d'Ivoire, 2018

	woubi (n=124)	***woubi* & yossi** (n=212)	***yossi*** (n=121)	**neither *woubi* nor *yossi*** (n=61)	**total** (n=518)	**P** (Chi² test)
Frequents MSM bars or clubs						0.001
yes	56.5%	48.6%	52.9%	26.2%	48.8%	
no	43.5%	51.4%	47.1%	73.8%	51.2%	
Knows of MSM associations						0.002
yes	41.1%	43.9%	50.4%	21.3%	42.1%	
no	58.9%	56.1%	49.6%	78.7%	57.9%	
Knows the term *milieu* (MSM community)						0.002
yes	54.8%	62.7%	60.3%	36.1%	57.1%	
no	45.2%	37.3%	39.7%	63.9%	42.9%	
Has effeminate friends						<0.001
yes	93.5%	88.2%	76.9%	57.4%	83.2%	
no, do not know any	1.6%	1.9%	3.3%	8.2%	2.9%	
no, avoid them	4.8%	9.9%	19.8%	34.4%	13.9%	
Has MSM friends						0.002
yes	98.4%	96.2%	89.3%	88.5%	94.2%	
no	1.6%	3.8%	10.7%	11.5%	5.8%	
Met MSM friends as a child						0.005
yes	51.6%	42.0%	32.2%	29.5%	40.5%	
no	48.4%	58.0%	67.8%	70.5%	59.5%	
Met MSM friends at school or university						0.039
yes	50.0%	50.9%	37.2%	37.7%	45.9%	
no	50.0%	49.1%	62.8%	62.3%	54.1%	
Met MSM friends through mutual acquaintances						<0.001
yes	87.1%	75.9%	74.4%	59.0%	76.3%	
no	12.9%	24.1%	25.6%	41.0%	23.7%	
Met MSM friends in bars or nightclubs						0.037
yes	54.0%	52.4%	49.6%	32.8%	49.8%	
no	46.0%	47.6%	50.4%	67.2%	50.2%	
Met MSM friends in a public place (street, field, beach, park)						0.009
yes	57.3%	55.2%	49.6%	32.8%	51.7%	
no	42.7%	44.8%	50.4%	67.2%	48.3%	
Met MSM friends through associations						0.14
yes	38.7%	42.5%	36.4%	26.2%	38.2%	
no	61.3%	57.5%	63.6%	73.8%	61.8%	

	woubi (n=124)	***woubi* & yossi** (n=212)	***yossi*** (n=121)	**neither *woubi* nor *yossi*** (n=61)	**total** (n=518)	**P** (Chi² test)
Met MSM friends on the internet						0.008
yes	81.5%	75.5%	70.2%	59.0%	73.7%	
no	18.5%	24.5%	29.8%	41.0%	26.3%	