Contested Truths Over COVID-19 in East Africa: Examining Opposition to Public Health Measures in Tanzania and Uganda

Jia Hui Lee D, Laura A. Meek D and Jacob Katumusiime

Abstract: The comparative analysis of three "contested truths" around COVID-19 in East Africa demonstrates that knowledge is a product of knotted, uneven, and disputed epistemological practices tied to structures of power. Lee, Meek, and Katumusiime examine: (1) the construction of a pan-African skepticism of COVID-19 that drew on anti-imperialist discourses; (2) social media posts through which Tanzanian digital publics critically evaluated steam inhalation as an alternative therapeutic for COVID-19; and (3) the resistance by many Ugandans to complying with public health measures such as lockdowns. "Contested truths" is used as an analytical framework to center the specificity and situatedness of truth-making in East Africa during the COVID-19 pandemic.

Resumo: A partir de uma análise comparativa, Lee, Meek, e Katumusiime examinam três controvérsias epistemológicas em torno da COVID-19 na África Oriental: (1) a construção de um ceticismo pan-africano em relação à COVID-19, baseado em discursos anti-imperialistas; (2) a discussão em redes sociais na qual o público digital da Tanzânia avaliava criticamente a inalação de vapor como uma alternativa

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terapêutica para a COVID-19; e (3) a resistência de muitos ugandenses em cumprir medidas de saúde pública, como o isolamento. Ao analisar essas "verdades contestadas," os autores demonstram que o conhecimento é um produto de práticas epistemológicas entrelaçadas, desiguais e disputadas, ligadas a estruturas de poder.

Muhtasari: Uchanganuzi huu wa kulinganisha kweli tatu zinazoshindaniwa kuhusu Uviko-19 (COVID-19) ndani ya Afrika Mashariki unaonyesha kuwa maarifa ni zao la mazoea ya kielimu yenye mafundo, yasiyolingana, yanayobishaniwa na yanayofungamana na mifumo ya mamlaka. Lee, Meek, na Katumusiime wanachunguza (1) ujenzi wa mashaka ya pan-Afrika kuhusu Uviko-19 ambayo yanatokana na mijadala ya kupinga ubepari; (2) machapisho katika mitandao ya kijamii ambapo umma wa kidijitali wa Tanzania ulitathmini kwa kina uvutaji wa mvuke kama tiba mbadala ya Uviko-19; na (3) ukaidi wa Waganda wengi dhidi ya kutii sheria na taratibu za kiafya za umma kama vile kusitishwa kwa shughuli zote za umma. Wanapendekeza mfumo wa uchanganuzi wa "kweli zinazoshindaniwa" ambao unazingatia umaalum na hali ya kutengeneza/kutafuta ukweli ndani ya Afrika Mashariki wakati wa janga la Uviko-19.

Résumé: L'analyse comparative de trois « vérités contestées » autour de la COVID-19 en Afrique de l'Est démontre que le savoir est le produit de pratiques épistémologiques nouées, inégales et contestées liées aux structures de pouvoir. Lee, Meek et Katumusiime examinent: (1) la construction d'un scepticisme panafricain à l'égard de la COVID-19 qui s'appuyait sur des discours anti-impérialistes; (2) les messages sur les médias sociaux par lesquelles le public numérique tanzanien a évalué de manière critique l'inhalation de vapeur comme traitement alternatif à la COVID-19; et (3) la résistance de nombreux Ougandais à se conformer aux mesures de santé publique telles que le confinement. Les « vérités contestées » sont utilisées comme cadre analytique pour centrer la spécificité et la situation de la vérité en Afrique de l'Est pendant la pandémie de COVID-19.

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Introduction

One of the most significant challenges to confronting and mitigating the COVID-19 pandemic has concerned the manufacturing, circulation, and interpretation of what we call "contested truths." By this term, we mean the many and varied ways in which official, institutional, and/or scientific facts and recommendations about COVID-19 have been challenged, ignored, or subverted. In some instances, truths are contested because government officials worry that mitigation measures to thwart infections might devastate people's economic livelihoods. In other cases, distrust for the World Health Organization (WHO) runs deep, with many seeing the institution as operationalizing a geopolitical agenda to disempower African nations. For yet others, lockdown rules dictated by political leaders appear as patent attempts to quell protests and stifle political opposition. Rather than assume that lockdown protests in Uganda, state-led COVID-19 "denialism," or alternative healing in Tanzania—the three cases under consideration are practices stemming from ignorance, misinformation, or conspiracy theories (Ogola 2021), we take such controversies seriously as sites of contested truths.

We contend that labels such as "fake news," "misinformation," "infodemic," and "conspiracy theories" (The Lancet Infectious Diseases 2020) perpetuate colonial violence by removing certain questions from consideration while imposing irrationality on those who are said to articulate them (Knight 2003). In the spaces from which we write, these disqualifying labels silence the voices of marginalized populations whose distrust and suspicion are well founded, given histories of colonial conquest and extraction in Africa, and exacerbated by decades of Western-imposed neoliberal deregulation (Fassin 2007; Richardson 2020). Further, as other scholars have observed, the notion that Africans are especially susceptible to conspiracy theories or somehow unable to discern fakery from truth is rooted in colonialist epistemic geographies that locate the production and circulation of conspiracy theories (and rumors) in the African continent (White 2000, 2021). This racialized and pathologizing view further assumes that African products and knowledge must be fact-checked, evaluated, and accredited by experts in the global North.

Seeking to unsettle such a framing, we focus instead on the political, religious, and socio-economic processes that manufacture, legitimize, and distribute certain "contested truths" around COVID-19 in East Africa. This article attends specifically to three epistemological controversies that

surfaced in Tanzania and Uganda between 2020 and 2022.1 First, we examine the construction of a pan-African form of COVID-19 denialism that drew on anti-imperialist discourses in Tanzania, led by its late president, John Pombe Magufuli, at the outset of the pandemic. Second, analyzing social media posts on Twitter (now X), we consider the ways in which Tanzanian digital publics critically evaluated state endorsements of alternative therapeutics for COVID-19, such as steam inhalation (kupiga nyungu or kujifukiza). Finally, through an analysis of resistance to COVID-19 guidelines in Uganda, we demonstrate how indifference or refusal to comply with public health measures during the COVID-19 pandemic acted as a challenge to normative, hegemonic truths as they came to be monopolized by state power. This comparative analysis across multiple scales, from the individual to the global, and at various levels, including student unions, social media postings, and corporate news media, enables us to offer a general analytical framework that attends to the specific and unique social and political contexts of these phenomena without subsuming them under global (North) experiences of the pandemic (see Mamdani 1996). Rather, we challenge how assertions of truth or its attendant putative opposites, such as "conspiracy," "disinformation" or "fake news," are themselves scalar claims rooted in colonial geopolitical ideas about Africa's subservient place in the production of global knowledge (Ferguson 2006; Hecht 2018).

Given the highly infectious nature of the COVID-19 coronavirus, we conducted research using methods described as the "virtual turn" within African Studies (Luongo & Lawrance 2022). Using a combination of media and discourse analyses, we examined newspapers, YouTube videos, television programming, online news websites, and social media postings to track emergent local, national, and regional discourses in Tanzania and Uganda that contested various public health responses to the pandemic. Our case studies contribute to an archive that has previously excluded African voices and perspectives. As Nanjala Nyabola (2022:8–11) notes, for instance, there is a glaring absence of any historical records about how Africans navigated the 1918 influenza pandemic.3 We seek to correct this over-representation of Euro-American "truths" and the concomitant (colonial) marginalization and erasure of African knowledges and societies. Our archive will thus provide critical documentation of how individuals and societies in Africa transformed and reorganized information into specific actions for surviving an unprecedented global health crisis. At the same time, including different scales and levels of action enables us to demonstrate how African communities and governments sometimes drew on or disrupted hegemonic biomedical discourses in order to enact social and political change, such as autonomous control over public health policy, equitable access to treatments, and economically inclusive interventions. We therefore move away from approaches that take knowledge itself as an object, and instead attune ourselves to the

enactments and transformative effects of knowledge claims during crises, what Susan R. Whyte (1997) describes as the "pragmatics of uncertainty."

Contested Truths as an Analytical Framework

The case studies examined here build on each other to make a broader argument about the power and performativity of truth claims in postcolonial contexts. The first section focuses on the Tanzanian government's denial of the risk posed by the coronavirus; we underscore that seemingly irresponsible or anti-scientific positions are frequently also political contestations over resources, economic priorities, and glaring global (health) inequalities inherited from colonization and neoliberal privatization (see Richardson 2020). Next, we show how contesting truths does not work in binary terms, as merely truths or falsehoods. Rather than simply endorsing or invalidating steam inhalation as a COVID-19 therapeutic, Tanzanian social media users discussed and debated it as an alternative or adjunct to social distancing, particularly at a time when vaccines were unavailable or inaccessible in Africa. Finally, we turn to student and artist-led protests against public health measures to show how Ugandan civil society pushed back against hypocritical and authoritarian state action, successfully negotiating with the state for more equitable public health measures.

Taken together, these cases demonstrate how contested truths in East Africa: 1) refused inequitable international relations (through the articulation of an alternative pan-African vision); 2) grappled with the nuances of medical practice and knowledge beyond either/or binaries (thus challenging hegemonic biomedical claims as well as the converse impulse to romanticize "tradition"); and 3) reconfigured power relations within nations (through the efforts of a robust civil society). What is revealed is that the stakes of knowledge claims are always multiscalar; "truths" interpellate both global and local communities, professional and lay audiences alike, and the coloniality of knowledge can therefore be met and challenged on each of these levels. As an analytical framework, the concept of contested truths enables us to examine the knotted complexity of global health responses in East Africa, and particularly those practiced under emergency circumstances, as ongoing challenges, accommodations, or exploitations of existing power relations that have endured since colonialism (see also Affun-Adegbulu & Adegbulu 2020).

Patricia Kingori (2021) notes in her introduction to a special issue on "fakes" in Africa that ideas about what counts as "real" reveal unequal power relations that condition the production and accreditation of knowledge. The current political economy of knowledge privileges Euro-American institutions as sites of authentication and accreditation while presuming African spaces to be sources of deception and fraud. Persisting since colonization, these asymmetries of power continue to shape knowledge production in and of the continent, and in turn, authorize certain knowledges as valuable, significant, or truthful—what some might otherwise call a coloniality of truth

(Mignolo & Walsh 2018; Ndlovu-Gatsheni 2015). Contestations of truths during the COVID-19 pandemic in East Africa are also responses to this neo/colonial political economy of power and the epistemic inequities upon which it rests.

Refusing a coloniality of truth—whereby African narratives and experiences are assumed to require authentication by public health experts or social scientists in the global North—we examine the methods, commitments, and stakes of different purveyors of truth and their situated epistemological practices. As scholars located on three different continents and in three diverse disciplines, our approach is situated at the crossroads of several different academic literatures, including medical anthropology, feminist, decolonial, and anti-racist science and technology studies (STS), postcolonial theory, and Black and African studies. Scholars from these fields have moved beyond binaries of fakes and truths by showing how bodies, cures, and afflictions are multiply understood and enacted (Hastings 2016; Whyte 1997). Scholarship in Africa, in particular, has challenged Eurocentric definitions of illness and treatment, and the ways in which knowledge on the continent has been made invisible even as it is extracted (Mayhunga 2018; Osseo-Asare 2014). This piece extends this analysis to understand health and healing beyond biomedicine, focusing on the social construction of illnesses in Africa (Feierman 1985; Janzen 2014). Such attention to medical pluralism destabilizes the totalizing and homogenizing narrative of biomedicine by seriously considering those forms of healing whose knowledges and practices exceed and, at times, unsettle those grounded in science (Langwick 2007; Neely & Meek 2022).

Our article participates in ongoing discussions about the suitability of implementing lockdown policies in Africa, which many social scientists have argued is potentially more devastating to Africans' economic livelihoods and access to healthcare than is COVID-19 itself (Broadbent & Streicher 2022; Green & Fazi 2023). Instead, researchers have advocated for "street-level" public health interventions (Carlitz et al. 2021; see also Afolabi & Ilesanmi 2021) that focus on the agency, needs, and interests of people who are trying to cope with the bodily, economic, and social interruptions wrought by the COVID-19 pandemic. We similarly approach COVID-19 denialism, alternative therapies, and protests against social distancing in East Africa by addressing why and how African actors challenge certain hegemonic claims. Our article is inspired by critical interventions from previous work on Ebola and HIV/AIDS in Africa and elsewhere (Briggs 2005; Charles 2022; Mulwo et al. 2012; Richardson 2020; Wang 2008). Aligned with these works, we seek to bring decolonial and anti-racist approaches to the fore of African Studies, in order to scrutinize processes by which truths are produced and contested in science and medicine without reifying colonial and white supremacist distinctions between knowledge and belief, science and superstition, modernity and tradition (Mavhunga 2017; McKittrick 2021; Mignolo & Walsh 2018; Ndlovu-Gatsheni 2018; p'Bitek 1984).

Understanding contested truths in this way—as fundamentally questions of political action, agency, and transformation—helps us to envision possibilities for health and healing beyond the limiting binaries that have constituted the global health project (Cousins et al. 2021), such as true versus fake news, biomedical or alternative therapies, information and disinformation, and reality opposed to conspiracies in an era that some are calling "posttruth" (Boukari & Philipps 2023; Lynch 2017; Prasad 2022). We follow both politicized and quotidian practices through which medical care and knowledge production are deftly choreographed in everyday practices (Biruk 2018; Livingston 2012; McKay 2018) and insist that contested truths around COVID-19 in Africa, as elsewhere, are complex, multifarious, and often ambivalent—refusing to be encapsulated within a "single story" (Mkhwanazi 2016). Such an analytic orientation can lead to better informed and more effective public health policies formulated around actors' different social positions with regard to scientific (un)certainty, public health advice, state control, and their entwining with histories of oppression, inequity, counter-knowledge, and suspicion in the African context (Abimbola & Pai 2020).

COVID-19 Denialism and Authoritarian Anti-Imperialism in Tanzania

In March 2021, Tanzanian President John Magufuli passed away from what many believe was COVID-19, despite his own insistence that the disease was not present in the country (Busari & Princewill 2021; Dahir 2021b). Magufuli claimed that COVID-19 was "satanic," and that it could be-and indeed had been—defeated through prayer. Although the official account is that the president died from complications of heart disease, there are many within and beyond Tanzania who doubt the veracity of this claim (Dahir 2021a). Other high-ranking government officials in Tanzania, such as Zanzibar's Vice President Maalim Seif Sharif Hamad, died from COVID-19 while Magufuli was censoring any mention of it in the press (Rajab 2021).

In response to the pandemic, President Magufuli (elected in 2015 and re-elected in 2020) made the controversial decision not to impose widespread lockdowns, nor even to encourage mask wearing or social distancing. Instead, in April 2020, he suggested that citizens engage in three days of national prayer to defeat the disease (VOA News 2020). Shortly after, in May 2020, Tanzanian authorities stopped regularly releasing figures regarding rates of COVID-19 infection in the country, and what minimal figures they did provide appeared highly suspect (Mwai & Giles 2020). Although President Magufuli was praised by some Tanzanians for his handling of the pandemic, the international response was summarily critical. Western media excoriated the president for his promotion of Christian and Islamic faiths as more efficacious than laboratory testing or biomedical treatment. In April 2020, the president was described by the Canadian national newspaper The Globe and Mail as one of the "notorious nine" worst leaders in the world for his pandemic response (York et al. 2020). The same month, the Wall Street Journal reported that Tanzania was the only country in the world to "actively recommend its citizens attend religious services as a method to combat the virus" (Bariyo & Parkinson 2020). A Roman Catholic with Pentecostal and Charismatic ties, Magufuli was reported to have told a congregation in Dodoma that "You haven't seen me fearing to take communion, because corona[virus] is satanic and can't survive in Jesus' body. It will be destroyed" (AllAfrica 2020).

International criticism of Magufuli's pandemic response extended beyond the president himself. International news stories reporting high rates of church attendance in the country often employed not-so-subtle colonial and racist overtones in describing Tanzanians. This is evident, for instance, in the use of terms such as "throngs" and "hordes" (Bariyo & Parkinson 2020; Roussi 2021). Such portrayals invoke an uncivilized, nonmodern mass driven by irrational beliefs not (yet) properly eradicated by the supposed gifts of European Enlightenment and reason. One passage in a Wall Street Journal article claimed that "Historians say the arguments advanced by Mr. Magufuli and some pastors in the U.S. and elsewhere that faith should be mobilized to defeat the virus shows the endurance of ideas that can be traced back to medieval Europe" (Bariyo & Parkinson 2020). Here contemporary Africa is compared to Europe's pre-Enlightenment past. It is against this "denial of coevalness" (Fabian 1983)—the tendency to render subjects outside a shared temporal frame—and its imperialist overtones that President Magufuli aimed his later critiques of COVID-19 laboratory tests.

President Magufuli had a PhD in chemistry and was trained as a scientist, making it all the more surprising that he advocated the "true healing of God" (uponyaji wa kweli wa Mungu) while belittling biomedical treatments for COVID-19. Even more scandalously, though, Magufuli called the epistemological authority of science into question by testing the COVID-19 diagnostic test itself. He submitted several nonhuman samples to the National Health Laboratory for COVID-19 testing, labelling them with human names to disguise the experiment. The laboratory returned positive results for samples from a goat, quail, and pawpaw fruit, seemingly proving the inefficacy of this diagnostic technology (AllAfrica 2020). On national television, Magufuli used this finding to insinuate that both laboratory staff and (opposition) politicians who were calling for COVID-19 lockdowns were secretly "on the payroll of imperialists" (The Citizen 2020). These moves were consistent with Magufuli's political stance toward the global North more generally; he refused to attend the UN General Assembly and he revived the independence-era term beberu (literally, "male goat") to refer to such groups as "Western imperialists" (Awami 2020).

Additionally, in a move that harkened back to an earlier era of socialist nonalignment in Tanzania (Langwick 2010), Magufuli made waves by announcing that he would import an artemisia herbal tonic from Madagascar, whose President Andry Rajoelina claimed that the tonic cured COVID-19 (Ioussouf 2020). As Madagascar's herbal therapy was exported to the Comoros, Guinea-Bissau, Senegal, Tanzania, and other nations, supporters saw this as a resurgence of pan-African innovation (Shaban 2020). The

president's promotion of vernacular African healing practices rekindled independence-era narratives of African self-sufficiency, reminding many Tanzanians of their first president, Julius Nyerere, the "father of the nation" (baba wa taifa), who frequently ignored "advice" from Western nations, fighting against the imposition of structural adjustment policies until the very end of his presidency (Thiong'o 2021). Magufuli's refusal to impose widespread lockdowns was also interpreted within a longstanding political praxis whereby leaders are expected to care materially for their people, much as President Nyerere had done. Indeed, Nyerere was a frequent point of reference for Magufuli, who explained his refusal to issue lockdowns by saying that "Our founding father [Nyerere] was not someone to be directed to be told what to do... Those who devise these kinds of rules [lockdown] are used to making these directives that our founding father refused" (BBC News 2021). Magufuli instead prioritized the need to keep the economy open, arguing that lockdowns, too, would cost lives (see Green & Fazi 2023).

Meanwhile, Magufuli's references to Pentecostal notions of spiritual warfare suggested that the COVID-19 pandemic was not merely a secular threat (Meek 2023). When laboratory testing for COVID-19 proved faulty, Magufuli commented, "So many times, I have insisted that not everything that you are given is good. There could be people being used, that equipment could be used... but it could also be sabotage because this is warfare" (Awami 2020, emphasis added). While Western media outlets such as BBC News interpreted that statement as "lurching towards a conspiracy theory" (Awami 2020), others heard echoes of the pervasive Pentecostal discourses on religious "warfare" against Satanic forces threatening the nation and its citizens. Indeed, political practices of religious mediation—via "efforts to keep God on the side of the nation" (Haynes 2018)—are playing an increasingly central role in national leadership in and beyond East Africa. Pentecostal pastors also played a key role in protests challenging the Ugandan government's lockdown and quarantine measures (as elaborated below).

While one could dismiss President Magufuli's actions as irresponsible public health interventions or self-serving political maneuverings, such censure will not get us very far toward explaining their widespread popularity (which enabled his re-election in the midst of the pandemic). Rather, interpreted within the anti-imperialist frameworks that Magufuli deployed, his actions sought to untangle Tanzania and Africa from the knot of unequal global power relations and to work toward an emerging pan-African political project. Magufuli was not alone in this vision; other prominent figures, such as the Nigerian Pentecostal preacher and televangelist prophet T. B. Joshua, also sought to make aligned epistemic, political, and spiritual interventions (Meek 2023). In so doing, these actors profoundly destabilized truth-making processes dominated by Western institutions, often in order to reclaim the ability to control the narrative of the pandemic. The narrative that emerged from Magufuli and Joshua's visions challenged colonialist tropes of global health predictions that Africa would be devastated by the pandemic, inept in its response, and dependent upon philanthropy from the global North for

survival (Anna 2020; Bavier 2020). They contested "the business of Black death" and the (erroneous) predictions that COVID-19 would ravage the African continent (Harper-Shipman & Bako 2021; see also Smith 2006).

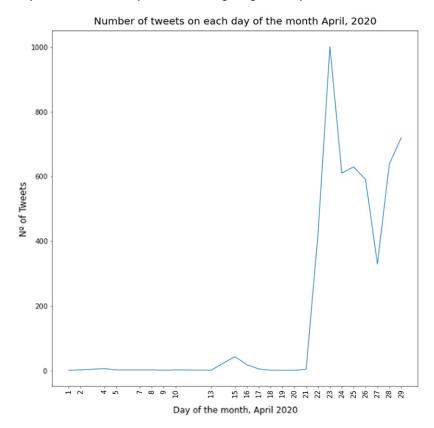
At the same time, African contestations over truths are diverse, both within and between nations. President Magufuli's rhetoric and (lack of) public health policies faced harsh criticism from some sectors within the country, particularly youth and leaders of opposition political parties (Kombe 2020a). Internationally, his pan-African aspirations were undermined by the fact that several other African leaders openly disagreed with his approach (Patterson & Balogun 2021), and local sources suggested that many deaths went unreported (Buguzi 2021). Some of his most outspoken critics were journalists, such as Khalifa Said, who was fired from *The Citizen* newspaper in March 2020 after postings he made on Twitter (now X) calling for protests against Magufuli's policies (Said 2020). The authoritative-leaning government responded a few days later by threatening to arrest and prosecute anyone posting so-called "fake news" or "misinformation" on social media (Mhagama 2020). As these developments attest, discrediting epistemic labels (such as "fake news") can be used to shore up concentrations of power and inequalities within African countries, even while those same nations are fighting against colonial power imbalances. As the following section explores further, social media has been at the forefront of much of this debate. Through media sites such as Twitter and Facebook, public health discourses are directly engaged and contested by a wide range of actors, including not only political elites and medical personnel (see Patterson & Balogun 2021), but also critical digital publics in Africa who participate in epistemological debates via such technologies.

Steam Inhalation as Alternative Therapeutic for COVID-19

Ordinary Tanzanians followed the controversy surrounding Magufuli's dismissal of COVID-19 closely, and many exchanged views and participated in heated debates on social media. President Magufuli's actions and speeches about the disease were distributed and discussed through countless WhatsApp messages, thousands of comments on Instagram, and thousands of Twitter posts in the early months of the pandemic. In one of Magufuli's widely watched speeches, given in his hometown of Chato on April 22, 2020, the president assured Tanzanians that the country need not go into lockdown (East Africa TV 2020). He instead encouraged Tanzanians to inhale steam, claiming that the therapy "disintegrates" the lipid (mafuta) outer layer of the virus and thus kills it. In the days following this speech, social media users posted over a thousand tweets discussing steam therapy in Kiswahili (see Figure 1).

In this section, we focus on the ways that "digital publics" (Omanga 2019) among the middle- and upper-class in Tanzania have engaged with steam inhalation as a COVID-19 therapeutic. We track debates on the social media platform Twitter (now X) about steam therapy and its proper techniques,

Figure 1. Number of global tweets per day mentioning "-piga nyungu" or "-jifukiza" ("steam therapy" in Kiswahili) during the month of April 2020. Note the spike in tweets on April 23 following Magufuli's speech.



potential effects, and contested legitimacy, demonstrating how Tanzanians actively discussed and critically evaluated the evidence presented by state officials. The fact that many Tanzanians who have access to smartphones and digital applications such as Twitter talk about steaming online also underscores social media as a crucial site where people evaluate facts and collectively produce knowledge outside of the confines of institutionalized spaces like scientific laboratories, incorporated media outlets, and state offices such as the Ministry of Health (Cross 2021; Fuh 2021; Lamoureaux & Sureau 2019).

Steam inhalation (kujifukiza/kupiga nyungu) is usually practiced in Tanzania by boiling a large pot of water with herbs—such as neem, eucalyptus, tulsi, lime, ginger, and/or lemongrass—and then inhaling the steam produced by the mixture. A cloth (shuka or kanga) is sometimes placed over the user's head and the pot to create a temporary steam chamber. Steam inhalation is widely practiced as a therapeutic for respiratory ailments, headaches, stress, and insomnia; during the COVID-19 pandemic, our colleagues shared with us examples of steam inhalation being discussed on social media in Uganda, Zambia, Ghana, Nigeria, South Africa, Sri Lanka, and India. But by April 2020, the WHO along with international news outlets such as BBC News Swahili (2020) and Reuters (2021) began issuing warnings about steam inhalation for treating COVID-19 (see also Africa Check 2021). These news sites cautioned that inhaling steam can cause burns to the respiratory system and that handling fire and large boiling pots of water increases the risk of accidents. For many Tanzanians on social media, these warnings were baffling and smacked of the coloniality of global health (Richardson 2020).

We obtained 4,992 tweets in Kiswahili posted during the month of April 2020 (the first full month after COVID-19 was declared a global pandemic) using the Twitter application programming interface (API). We then analyzed 500 randomly selected tweets via a close reading. Our analysis is informed by the work of scholars such as Melanie Walsh (2021) and other data feminists who combine computational analysis with an awareness of the extractive, reductive, and spectacular risks of data science (D'Ignazio & Klein 2020; Hatch 2022). We have thus refrained from identifying any users or tweet IDs in this study except for those of public figures. Posts are also quoted here as English translations of Kiswahili so that the exact post cannot be easily traced back to its user.

The practice of steaming began attracting public attention in Tanzania when it was discussed in a speech made by a Member of Parliament, Anna Tibaijuka, who is also the former Executive Director of the United Nations Program on Human Settlements (UN-HABITAT). ⁴ Tibaijuka first raised the question of steaming in the early days of the pandemic. Before Magufuli's widely discussed speech, Tibaijuka had addressed Parliament, proclaiming that given the scientific uncertainty over COVID-19, Tanzanians would not just "wait for death" ("Hakuna jamii itakayokaa na kusubiri kifo"). Instead, she insisted that "we [Tanzanians] have our own alternative ways [njia za mbadala], so why are we not using our traditional ways [njia za asilia]?" She concluded her speech by advocating steam inhalation in addition to wearing masks, washing hands, and social distancing (Mtanzania Digital 2020). After this speech, Tanzanians began to share more information on Twitter about the practice, including recommending which herbs to boil.

Twitter users in Tanzania who posted encouraging information about steam inhalation generally echoed Tibaijuka's comments by advocating that steaming should be practiced in concert with social distancing and handwashing. Early on during the COVID-19 pandemic, steaming was also seen as a viable alternative therapy for the disease in the absence of available vaccines or treatments. Some commentators framed the availability of alternatives (mbadala) as beneficial because Tanzania could thus assume some degree of self-reliance and independence in the face of a lack of information about the virus and the eventual difficulties of gaining access to vaccines. As one user put it: "Tanzanians should try to use steaming as an alternative for now as it would help prevent COVID-19 infection [and] because there are still no other ways to prevent the disease."

At the same time, a significant number of users posting about steaming actively sought out more information. These individuals—having seen steam therapy on WhatsApp and/or Facebook messaging platforms or having heard about it from discussions in town—responded by asking for more evidence by which to critically evaluate such claims. "When I was recently in town, someone said that steaming is a good way to treat COVID-19. Is this [also] safe for children??" one user asked. "Can you let me know the risks [madhara] of steaming please?" asked another. These posts pointed to the lack of clarity in the guidance from official sources about steaming, demonstrating the potential for social media platforms to act as robust epistemological forums in contrast to the more dire laments about such spaces as incubators of falsities and misinformation. Dr. Joseph Otieno, Director of the Institute of Traditional Medicine at the Muhimbili University of Health and Allied Sciences, tried to clarify the situation by making public statements cautioning that steaming does not actually prevent COVID-19 but that it can still alleviate symptoms. This led to yet more posts requesting confirmation about the effects and efficacy of steaming. "In Tanzania, steaming to kill the coronavirus seems to be an acceptable cure but the WHO and the BBC deny this, saying that it is dangerous for health. Who do we believe now, fellow Tanzanians?" pleaded one user.

Meanwhile, another sizable portion of Twitter users in Tanzania condemned steaming, referring to the practice with terms such as "upuuzi" (nonsense) and "ujinga" (ignorance). These users pointed to reports of city councilors who steamed and later died from flu-like symptoms as evidence of the ineffectiveness or dangers of steaming as a COVID-19 therapeutic. At times, this condemnation took the form of "humor as a tool of agency" (Patterson & Balogun 2021:152). Some tweets jokingly referred to steaming as a form of witchcraft. Using the "rolling on the floor laughing" emoji, they posted that steam therapy was recommended by expert witchdoctors of Gamboshi, a place rumored to be the headquarters of witchcraft in Tanzania. Some of those who ridiculed steaming as witchcraft framed the practice as ignorant or primitive (nyuma), calling upon Tanzanians to disregard the advice to use steam. In a particularly harsh condemnation of Tanzanians who practice steaming, one user wrote in Kiswahili that "The whites need only to use a small part of their brains to colonize Africans." For this user, steaming was an ignorant practice, and the president's endorsement of steam therapy only further confirmed this perceived national ignorance. Other users expressed embarrassment, with one well-known commentator, Kigogo (@kigogo2014), writing "be prepared to be laughed at as a country by the world!"6

For these commentators, steam therapy, especially justified as indigenous knowledge, threatened to reinforce a colonial stereotype of Africa as a space of deficiency or primitivity. They saw the assurance and legitimacy proffered by biomedical science as tied to a promise of Tanzania's full and perhaps equal membership among the world's nations. Notably, those commentators who drew upon tradition to encourage steaming often relied on

similar concerns about the place of Tanzanian knowledge in a postcolonial world. For example, in mid-April 2020, the deputy minister of health, Dr. Faustine Ndugulile, told reporters that steaming does not treat COVID-19 or kill the coronavirus.⁷ Questioning this advice, one user countered, "Then how do you explain the fact that steaming has been used since the olden days as a form of indigenous treatment? Are we to assume that before Europeans arrived, Africans were not able to treat their own illnesses?"

A close reading of these posts about steaming in Tanzania suggests that the practice and the discourses surrounding steaming should not be summarily dismissed as forms of mis- or disinformation (see Kombe 2020b). Instead, Tanzania's digital publics approached steaming critically, appraised its effectiveness, compared it to biomedical practices, and weighed its risks and possible therapeutic benefits within a global context of unequal access to biomedical knowledge and healthcare. Among those who encouraged steaming, many advocated its use in addition to social distancing and mask wearing. At a time when so much about COVID-19 was not yet known, when there were no vaccines, cures, or effective medical interventions to reduce mortality, steaming offered a positive way to cope with the uncertainty of death. Further, the fact that steaming is a recognizably local, autochthonous practice—seen by many as "African"—also offered people in (and beyond) Tanzania a chance to participate in a global conversation about what could be done to confront a global pandemic. For the most ardent steamers, steaming glimmered with therapeutic hopes and the promise of pan-African selfdetermination. Our analysis insists that such social media discussions in East Africa do not approach public health advice as a true/false binary. These social media evaluations of various alternatives are in fact key interventions into global discussions about public health responses to pandemics. They respond to and disrupt Tanzania's marginalized position in global medical research, distributions of care, and public health resources.

Public Refusal Toward COVID-19 Safety Measures in Uganda

As Tanzanian digital publics avidly discussed COVID-19 and considered possible therapeutics for the disease, many Ugandans protested safety measures that were being unilaterally and hypocritically imposed by state institutions. As in Tanzania, the most vocal critique of COVID-19 policies initially came from the Pentecostal movement in Uganda. The state closed religious institutions to control mass gatherings that may have increased the risk of spreading COVID-19. Ironically, the government continued breaking the same rules it imposed. Political campaigns for the general elections in January 2021 were held, despite social distancing guidelines; these rallies even included events headlined by the Minister of Health (NTV Uganda 2020).

Under their umbrella body, the National Pastors Platform, clerics spearheaded a campaign to resist COVID-19 policies by reopening places of worship. Some religious leaders even claimed the power to heal COVID-19,

and the government warned them against uttering reckless and "misleading" statements (Emmanuel 2020). In March 2020, Pastor Augustine Yiga of Revival Christian Church Kawala was arrested and imprisoned for proclaiming that COVID-19 was not a cause for concern in Uganda. Pastor Yiga had used his television network to promote the idea that COVID-19 was "just flu," which had long existed on the continent (Monitor 2020). Rather than taking these statements literally, at face value, many on the ground in Uganda saw them as an indirect form of political resistance to the hypocrisy and injustice of authoritarian state power.

This dissent further manifested in institutions of higher learning. As a graduate student in Uganda, Jacob Katumusiime (2021) observed undergraduate students refusing to comply with safety measures despite being fully aware of the dangers of COVID-19. And, in February 2022, Makerere University students led a strike against online instruction (Opio 2022). This was not the first strike against remote learning by students and others in Uganda's universities: students at Mbarara University of Science and Technology also held a strike in March 2021, in which they demanded in-person lectures regardless of the COVID-19 health threat. Their demonstrations were met with tear gas and arrests by the police, who accused student protestors of inciting violence (Kinene 2021). In May 2021, students of another government institution, Kyambogo University, also mounted protests against online classes, arguing that they could not afford the data costs necessary for internet access (The Independent 2021). In this section, we consider how contested truths as an analytical framework helps to explain civil society's apparent antagonism to public health measures, focusing on cases in which Ugandan students, teachers, artists, and publics refused or ignored the state's efforts to manage the COVID-19 pandemic. Instead of asking what individual actors "believed" to be true, we investigate what the effects of their speech and actions were; we foreground what truth claims do in the world, attending to their performative power rather than just their descriptive content.

Contrary to the view that public indifference to COVID-19 policies is nothing more than a form of blatant denialism, as some Ugandan media outlets claimed (BigEye 2020), we contend that Ugandan actors deployed grassroots strategies of refusal in order to contest the authoritarian entrenchment of state power and its hegemony over manufacturing and distributing information about the pandemic. In the case of student strikes, for instance, the protesters were of course not ignorant of the risks of in-person learning. Instead, they were challenging the opportunistic use of the health crisis to justify their financial exploitation and the further neoliberalization of the country's educational institutions. For example, the protests at Makerere University, a government institution where one of the authors is based, need to be read not only as a complaint against the increasing costs of access to education but also as a critique of the excesses of power. Students wondered how the government had opened the economy yet still insisted that they stay home and study online. Many missed online examinations due to technological lapses, but the university remained unwilling to listen. Among the

most affected students were those with visual impairments, for whom online studying presented an exclusionary barrier. The president of the students' guild, Shamim Nambasa, expressed dismay at the university administration's failure to dialogue with students (The Independent 2022). As we elaborate below, other Ugandans similarly refused to follow health mandates as a way to register their objection to government corruption, the differential treatment of elites, institutionalized hypocrisy, and state control over public access to information regarding COVID-19. These myriad injustices perpetrated by state actors served to brew deep mistrust among many Ugandans, transforming their subsequent acts of refusal and (seeming) indifference into agential forms of protest rather than forms of ignorance, hesitancy, or denialism (see also Ssentongo 2021).

Across Uganda, citizens who were being forced to quarantine, shut down their businesses, and stay at home during the pandemic watched with irony and frustration as state officials breached those very same COVID-19 protocols. For instance, the Ugandan Minister of Health Dr. Jane Ruth Aceng violated her own ministry's health guidelines when she led an election campaign procession in Lira City in November 2020 (The Observer 2020). Citizens refused to allow the state to "preach water but drink wine," especially given the deep sacrifices that many Ugandans had to make during the pandemic. The restrictions had, for example, decimated the nighttime economy and deprived people of many of their most cherished pastimes. Markets and shops were forced to close and—in cases where individuals found these restrictions insurmountable—economic and social desperation often set in. At the extreme end of this desperation, Hussein Walugembe, a boda-boda (taxi) driver, fatally set himself ablaze when police officers pressed him for a bribe at Masaka Central Police station (Aljazeera 2020).

The Ugandan state's hypocrisy—itself a legacy of colonial-era policies accelerated popular demands for explanations and justice. For instance, the Ugandan musician Eric Opoka, a.k.a. EeZzy, released "Tumbiza Sound," a song that criticized the severity of government public health measures. Lyrics in the song called for outright defiance of COVID-19 mandates and encouraged people to go drink at bars during the pandemic. One of the song's lines articulated this widespread refusal: "Ssi ka Corona / Tetujja kwetta twetuge mbu ki / Mbu olwo Corona!" (It can't be for Corona / We won't commit suicide / Just because of Corona!). With verses such as these, EeZzy channeled the frustrations of many Ugandans who were suffering from the extreme and differentially enforced measures imposed by the state (see also Pier & Mutagubya 2023 for other Ugandan COVID-19 songs). This song was later banned by the government for misleading the public—a move that not only exacerbated popular resentment but also further promoted the song itself. Realizing this, the Ministry of Health, under the guidance of the Permanent Secretary Dr. Diana K. Atwine, reversed course and "invited" EeZzy to rewrite certain lyrics of the song so that it would better inform listeners about the dangers of COVID-19 and encourage the public to practice social distancing (NTV Uganda 2020). EeZzy's subsequent interaction with the Ministry of Health

and resultant compromises highlight the power of Ugandan civil society to successfully contest the epistemic and political legitimacy of public health measures.

A contested truths framework recognizes the ability of Uganda's civil society to redirect the state's public health measures from a place of coercion to one of conversation. In challenging the government's harsh public health measures, refusing to accept their authoritarian and differential imposition, and illuminating the suffering that citizens were being forced to endure, Ugandans mobilized their refusal of COVID-19 mandates to enact social and policy change. Seen in this way, the student protests and EeZzy's music were not uncaring or selfish in their defiance of remote learning and social distancing. Rather, these are actions aimed at challenging the government's monopoly over public health expertise and truth. Through protest and song, Ugandans demanded agency and transparency in government decisionmaking processes that endangered both their livelihoods and lives.

Thus, these contestations about COVID-19 in Uganda were primarily challenges to state power, where certain truths are wielded by state actors to further the government's ability to restrict freedoms and harm public and personal welfare in ways that will last well beyond the pandemic. To interpret protests against lockdowns and remote learning as "reckless," as in the words of the Uganda Police Force (Katumusiime 2021), is to overlook their complexity as forms of Ugandan social movement building. Such grassroots and civil society contestations of state public health directives became sites through which disenfranchised East Africans could challenge the hegemony and hypocrisy of authoritarian state power.

As the Ugandan case also demonstrates, COVID-19 did not suspend the crisis of neoliberalism but further entrenched it; the pandemic did not impede repressive neocolonial political establishments but rather enhanced them. In Uganda, as in other East African nations, the ruling government's mismanagement of the health crisis and the continued operationalization of neoliberal and neocolonial policies inspired forms of grassroots anger and defiance. Nanjala Nyabola has described similarly violent police enforcement of pandemic lockdowns in Kenya and governmental corruption in the mismanagement of public health funds, as well as global vaccine inequality, calling the anger and dissent they foment a "necessary, righteous rage" (2022:147). Recalling Mahmood Mamdani's (1996) continued insistence on examining phenomena in their local contexts, we show that Ugandan resistance to the state's COVID-19 truth claims challenged necropolitical public health directives in order to change them. When the state wields truth as a weapon, contesting it becomes a political (and epistemic) site of resistance.

Conclusion

The Ugandan and Tanzanian predicaments have not been exceptional compared to other postcolonial African states. Across the continent, there has been widespread contestation of states' and global health actors' strategies to alleviate the threat of COVID-19. Understanding the social and political contexts within which these epistemic disputes unfold is central to navigating the COVID-19 pandemic and future global health crises. For instance, in Nigeria, citizens voiced their distrust in the political establishment through claims that COVID-19 was a Chinese biological weapon or a plague caused by sins (Olatunji et al. 2020). These theories, like others, counter state and international institutional claims about the origins and transmission of COVID-19 (Simon et al. 2020). They are aimed at challenging the purveyors of such truths and revealing the potentially powerful (ab)uses to which these claims are put (Afolabi & Ilesanmi 2021; Banjwa 2021; Nyalile & Loo 2021).

Our interpretive framework has involved paying close attention to contested truths in East Africa, their force and impact, their oblique and partial aspects, and the conditions that make them so compelling to so many. Contested truths call attention to a geopolitical context shaped by ongoing forms of coloniality, understood as the relationship between former colonizing powers in Euro-America and postcolonial African countries. The framework also attends to the ongoing efforts of decolonization by digital, religious, student, and creative actors on the ground who work to unsettle hegemonic public health knowledge and other forms of social control that are authored and authorized by international organizations, corporate news media, and corrupt national governments. Some of the actors we have written about here, such as the Ugandan student strikers or Tanzanians tweeting about steaming, can be seen as apprehending and engaging with the state in just this manner. Indeed, truths are not self-evident entities; they can be and are wielded with political intent, particularly in the context of neo/colonial power relations, where the authority to govern needs to be justified in the absence of popular consent.

We have argued against dismissing contested truths as either "conspiracy theories" or as forms of indifference or ignorance (see also West & Sanders 2003). Such approaches invisibilize the discursive and epistemological challenges these contestations present to necropolitical, neoliberal, and neocolonial deployments of "truth" that maintain socio-economic and political inequities. As Justin Haruyama (2023:172) notes, "the discursive work performed by the invocation of the category of 'conspiracy theory' is to consign the very suspicion that there might be a malicious conspiracy to a domain of primordial irrationality, treating the suspicion of conspiracy as a paranoid one whose epistemological bases bear no serious consideration or engagement." Similarly in our cases, the impulse to dismiss President Magufuli's Afrocentric rhetoric as ignorant or the Ugandan students' protests as uninformed would be to refuse to take seriously what is at stake in these actions. In proposing contested truths as an analytical framework, we call attention to the social, political, and epistemological stakes that shape knowledge's processes of production, legitimation, and distribution in and beyond East Africa. Knowledge, seen through this transdisciplinary and actionoriented lens, is less an object of truth and more a product of knotted and uneven epistemological practices, tied to structures of power that have been refined and reproduced from colonialism to neoliberal deregulation.

A keen attention to the process of truth-making is particularly important for addressing the critical limitations of global health projects that have been recently exposed by the COVID-19 pandemic. One key limitation has been the eroding of trust that many people in and beyond Africa have for public health information and institutions. Locked out of decision-making processes that result in billion-dollar projects whose effects are difficult to discern, grassroots actors and postcolonial elites alike have come to believe, for instance, that the Bill and Melinda Gates Foundation instrumentalized COVID-19 for population control, particularly of Africans (Haruyama 2023; Prasad 2022). Given the increasing complexity of data science and the accompanying opacity that surrounds processes of scientific knowledgemaking, many of the world's publics have unsurprisingly come to view global health institutions with increased hesitancy and suspicion.

In East Africa, the Tanzanian state's denial of COVID-19, heated digital public debates, and grassroots protests in Uganda against public health measures are moments in which local actors challenged deeply entrenched injustices by calling into question the truths that global and national institutions deploy to justify not just interventions, but also their authority and legitimacy to act in ways that profoundly delimit livelihoods and life chances. The contestation of truths, we contend, is thus also an act of contesting epistemic hierarchies and prevalent asymmetries of power in today's neocolonial and neoliberal political economy of knowledge-making. These contested truths highlight quotidian ideas and practices wielded by people who nonetheless have the power to interrupt the coloniality of knowledge, or at least to call into question normative processes of truth making. In many ways, Africans have been at the forefront of these processes, which could explain why the dire global health predictions about Africa's pandemic (un)preparedness turned out to be so wrong. African actors—from state leaders to civil society to the grassroots—are grappling with the power and performativity of truth in ways that the rest of the world would do well to learn from.

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Notes

- 1. Except in the Ugandan case, our analysis focuses on early experiences of the pandemic in East Africa, and as such, does not address contested truths around COVID-19 vaccination here. Nonetheless, our analytic framework—contested truths—may be useful for future scholars seeking to understand vaccine hesitancy, skepticism, and suspicion. COVID-19 is also not the first disease that has brought contested truths to light in the region (see, for example, Leach et al. 2022). Our analysis is deeply indebted to previous scholarly work on HIV/AIDS and Ebola, where contested truths significantly shaped understandings of the diseases, their origins, and access to care in and beyond Africa (McNeill 2009; Mulwo et al. 2012; Ouattara & Århem 2021; Richardson et al. 2019).
- 2. All local terms from Tanzania are in Kiswahili. We keep all references to the social media platform Twitter (now known as X) because these posts were authored, shared, and collected before 2023.
- 3. Andayi et al.'s (2019) paper on the 1918 influenza pandemic in coastal Kenya is an exception.
- 4. Anna Tibaijuka was fired in 2014 by then-President Jakaya Kikwete from her post as Land and Housing Minister for her alleged involvement in taking \$1 million as part of a large corruption scheme. She was re-elected in 2015 and remains a Member of Parliament.
- 5. Dr. Joseph Otieno's interview clarifying that steam therapy does not cure or prevent COVID-19 was tweeted and retweeted widely. See https://twitter.com/koncept_tv/status/1255394007863250944.
- 6. Part of the tweet reads: "tujiandae kuchekwa dunia nzima kama taifa! Habari toka ndani ya kamati ya kitaifa ya kupambana na corona ni kuwa imeundwa timu ya kitaifa ya mitishamba na kuhamasisha kujifukiza!" @kigogo2014 is a well-known Twitter account that shares information about Tanzania's political elite. The tweets are sometimes critical of the Tanzanian government, which, in turn, has threatened to arrest the individual(s) behind the account. See https://twitter.com/kigogo2014/status/1254318206782767104.
- 7. In an interview reported by *Kwanza TV* (an online newspaper that was later banned by the Tanzanian government) the then-Deputy Health Minister Dr. Faustine Ndugulile said "Steam therapy is not a valid way to treat or kill the coronavirus." See https://twitter.com/kwanza_tv/status/1250353523096576001.

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