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Journal of African Cultural Studies

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/cjac20

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To cite this article: Kristin Peterson (2021) The Racialization of Drug Fakery and Pharmaceutical Markets, Journal of African Cultural Studies, 33:3, 344-358, DOI: 10.1080/13696815.2021.1917343

To link to this article: https://doi.org/10.1080/13696815.2021.1917343

Published online: 20 Sep 2021.

JOURNAL OF AFRICAN CULTURAL STUDIES
2021, VOL. 33, NO. 3, 344–358
https://doi.org/10.1080/13696815.2021.1917343

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The Racialization of Drug Fakery and Pharmaceutical Markets

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ABSTRACT

In this article, I show that fake drugs circulate widely in markets that chronically experience non-equilibrium. Moreover, those who manufacture, buy, and sell low priced drugs for African markets are negotiating chronic market volatility and downward pricing pressures that are transnational in scope. I argue that global policy experts; state, regional, and global regulation agencies and organizations; and international NGOs that have stakes in eradicating fake drugs falsely assume that pharmaceutical traders work within market equilibrium conditions. These assumptions are racialized because they hold actors and markets accountable to a market equilibrium and rational actor standard that are characterized by a European imagination that came into being at the height of trans-Atlantic slavery and capitalist formation. Yorùbá and Ìgbò non-equilibrium theories of the market, in contrast, have characterized markets as volatile and precarious since the 15th century arrival of the Portuguese to West Africa. The implications are that preconceived ideas of equilibrium de facto racialize those who have little opportunity in a deeply precarious system – they are labeled as "fraudsters" rather than seen as rational actors working under conditions of extreme market volatility.

KEYWORDS

Race; fake drugs; pharmaceutical capitalism

ABSTRACT IN YORÙBÁ

Nínú ìwé yí, mọ fihàn pè inú ọjà tí ó ń ṣe àìṣedédé fún ìlọpo ọdún ni egbògi iró tí ń wọpọ. Àtiwípé, àwọn tí wọn ń ṣe, tí wọn ra, tí wọn sì ń tà egbògi olówó kékeré fún àwọn ọjà orílè èdè Áfríká na ń dúnà ọjà ti kò fini ní ọkàn balẹ, tí ó sì ń yí padà bíríbírí. Bẹẹni wọn tún dúnà àìlera òwò tó ń jẹ kí ọjà gbówólórí jákèjádò àwọn orílèdè àgbáyé. Ìjìyàn mi ni wípé, èrò àìrojinlẹ, èrò irọ ni tí a bá ní ìlera ọjá àtí ìṣesí àwọn onísowo ọlọgbọn dá lórí dànámíkì ọjà. Èrò yìí wá lati ọwọ àwọn tí wọn maa jẹ ànfàní ìparun egbògi irọ ni ọja - bi àwọn amọye òfin àgbáyé; ìpínlẹ, agbègbè, àti àwọn ilé iṣẹ tí wọn ń mọjútó ìlànà àgbáyé; àti àwọn ilé iṣẹ kàkiri orílèdè àgbáyé tí wọn ò kì ń ṣe ti ìjọba. Àwọn èrò yìí dálé ọrọ ẹlẹyàmẹyà nítorí ojú inú pẹlú ìwọn tí òyìnbó fi wọn ọlọgbọn àti ìṣe dédé ọjà ni a fi ń wo ọjà yìí. Èrò yí ti jẹyọ lati ìgbàtí òwò ẹrú lọsí òkè òkun lówó lórí ati nígbàtí kápítálísì fi ìdí múlè. Àbá Yorùbá and Ìgbò lórí ọrọ àìṣedédé ọja yàtọ sí èyí. Fún àwọn ẹyà méèjèjí yìí, ajé ti ní ewu bẹẹni ọja lè yí padà kíákíá láìròtẹlẹ lati ìgbàtí tí àwọn Portugí tí dé ilẹ West Africa ní 15th séntúrí. Èyí túmọ sí wípé àwọn èró ti tẹlẹ nípa ìṣe dédé ọjà fi èyà ara pín àwọn tí wọn kò ri ọnà gere tàbí ànfàní púpọ wá ọrọ ajé nínú ètò ọjà tí ó ní ewu gidigan ni. Wọn pè wọn ní ẹlẹtàn kàkàkí a rí wọn bí ọlọgbọn tó ń ṣiṣẹ takuntakun nínú ọjà tí ó yí padà bíríbírí, tí kò sì fini ní ọkàn balẹ rárá.

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Introduction

When I first conducted research on the Nigerian pharmaceutical market (2005–10), I hesitated writing anything about chemically altered – or fake – drugs. I turned to many experts to learn about fakes – to Nigerian importers, Nigerian academics, international NGOs, policy organizations, and official regulatory agencies, among others. I consistently encountered a singular discourse about those who bought and sold pharmaceuticals (regardless of the legitimacy of manufacturers or the chemical quality of their products) in unofficial Nigerian markets: they were deemed charlatans, fraudsters, fakers and evil doers. They were rarely, if ever, represented in any other way, conveying a hyper-racialization of their participation in a transcontinental pharmaceutical trade.

Moreover, the drug distribution system in Nigeria was consistently rendered, "chaotic", by the same interlocutors and policy-makers. Chaos implied that there is little logic to the wholesale system, which distributes to private retail markets throughout West and Central Africa. Chaos also implies unofficial markets alone are to blame for the influx of fake pharmaceutical goods. Moreover, charlatans, fraudsters, and evil doers were characterized as hijacking the pharmaceutical trade, pushing legitimate wholesalers (pharmacists or other medical suppliers) out of the system. The assumption here is that only illegitimate wholesalers would sell fake drugs. Certainly, I could understand all these points. I had plenty of Nigerian friends who had lost family and loved ones to chemically altered or inefficacious drugs. But I also felt that the analysis was singular and flat. It didn't broaden out to larger forces at work, which is ultimately an injustice to those suffering from the effects of chemically altered drugs.

I had trouble seeing a way out of this entrenched discourse. But after listening to many people, especially traders in unofficial Nigerian pharmaceutical markets (the ones deemed fraudsters and charlatans), I switched my ethnographic attention from "who is involved?" to "what is a market?" That is, I realized that my frustration with the fraudster-chaos mantra had to do with how fake drugs are obsessively analyzed across professions and place: the primary focus of "the who" of distribution and sales and not much else.[1] All attempts to eliminate fake drugs, including all the technology that comes with it, is directed mostly toward people who sell fake drugs. But rarely, if ever, is the market interrogated as a site that actually facilitates the production, distribution and sale of chemically altered drugs.

Why focus attention on markets? Since Adam Smith and David Ricardo (among others), markets have been imagined to adhere to their own "natural" laws – that they logically settle into their own equilibrium. European and North American schools of economic thought invented these ideas of balance and equilibrium.[2] They imagine markets as inert vehicles always defaulting to their natural state in the flow of commerce. When it comes to chemically altered drugs, this characterization of markets makes them seem so unremarkable, there is no urgency or even curiosity to examine them. Moreover, the people who buy and sell on markets are characterized as acting rationally to the market's desire to achieve its state of equilibrium. In this case, fraudsters and evil-doers are the irrational types working within a rational distribution system, according to Western theories of the market.

In this article, I show that fake drugs circulate widely in markets that chronically experience *non-equilibrium*, as they have long been characterized by Yorùbá and Ìgbò theories of the market. Moreover, those who manufacture, buy, and sell low priced drugs for

African markets are negotiating chronic market volatility and downward pricing pressures that are transnational in scope. I argue that market equilibrium and rational actors responding to market dynamics are empirically false assumptions made by global policy experts; state, regional, and global regulation agencies and organizations; and international NGOs that have stakes in eradicating fake drugs. These assumptions are racialized such that an implicit Euro-American whiteness is equated with market equilibrium and market chaos is equated with abject Blackness and Africanness.[3] They hold actors and markets accountable to a market equilibrium and rational actor standards that are characterized by a European imagination that came into being at the height of trans-Atlantic slavery and capitalist formation.

Moreover, as these theories of the market do not represent the realities of pharmaceutical capitalism found anywhere in the world, actors are nevertheless singled out in absolute terms, racializing "fraudsters" rather than seeing them as rational actors working under conditions of extreme market volatility made possible by Euro-American economic liberalization policies that create chaos rather than equilibrium.

Liberalization, Divestment, and Market Disorder

On the north end of Lagos Island, there is an enormous wholesale market where millions of pharmaceuticals await distribution to Nigerian as well as West and Central African private drug markets. The market resides within an old, historic neighborhood called Idumota. The drug market comprises just one section of a much larger market that is home to locally made goods such as fabrics, Nigerian music, and Nollywood films; but it mostly supplies imported goods from the Middle East and Asia such as kitchen wares, spare car parts, second-hand clothing, second hand computers, packaged food and all other goods essential to life and living. On any given day, the market is crowded with sellers wooing customers, cars and motorcycles pushing an impossible path through the hustle and bustle, and traders selling drinks, snacks, and mobile phone credit, earning bare amounts for their families. Yet in the pharmaceutical section, millions of dollars worth of mostly antimalarials, nutritional supplements, over-the counter analgesics, and antibiotics pass through this market *each and every day*. And while it may seem like an out of the way place – out of the way and distinct from the high-earning drug markets of North America, Europe, and Japan – Idumota is essentially tied into the manufacturing and distribution chains of the brand-name drug industry.

Idumota as a massive commercial pharmaceutical market did not exist until the 1980s. Its very formation was the result of two major political and economic events that restructured the Nigerian state and international pharmaceutical markets. The first was structural adjustment programs (SAP) administered by the World Bank and the International Monetary Fund, which privatized national African economies in the face of the collapse of continental wide commodity markets. SAPs had devastating consequences, including mass-induced societal poverty, job losses, basic subsidy removals, food insecurity, and an enormous accumulation of state debt (Olukoshi 1993; Thomas-Emeagwali 1995; Turshen 1999). The second was the restructuring of the pharmaceutical industry. At that time, the drug companies were experiencing a profitability crisis, which was generated by expiring drug patents, few products in the research and development pipeline, and

new competition in the global generics market (Kanji et al. 1992; Greene 2011). As the Reagan administration flushed the life sciences industry with new financing, pharmaceutical and especially biotech companies also pursued equity financing, which was primarily obtained via the NASDAQ stock market and venture capital (Cooper 2008). This led to a merger and acquisition frenzy where many companies (and their products) died off, while a few companies grew bigger and bigger. Moreover, becoming financialized meant that in exchange for financing, Wall Street investment firms began to dictate the standards of profitability. Drug companies were held to very high, nearly impossible rates of growth (not just profit generation), which when not achieved led to the threat of company sale and acquisition by other investment firms (Sunder Rajan 2017). By 2000, after the bulk of consolidations and asset dumping took place, the five top companies' wealth amounted to twice that of the gross domestic product for all of Sub-Saharan Africa (Borger 2001).

At the close of the 1970s, Nigeria was home to a thriving brand-name pharmaceutical market for which very few generic products even existed. The convergence of structural adjustment in Africa and the remaking of the pharmaceutical industry produced a violent dispossession and remaking of the Nigerian pharmaceutical market (Peterson 2014). These events, combined with others taking place locally in the Nigerian drug market, dramatically crashed Nigeria's brand-name market by the end of the 1980s. In the immediate aftermath, drugs became scarce and a new market had to be built.

Idumota represents the aftermath of such events, where new wholesaling systems were transferred from official to unofficial trading spheres; and the global circulation of pharmaceuticals in Nigeria shifted from North America and Europe to mostly Asia and the Middle East. Brand-name drugs were replaced with low-end, low-cost high selling therapeutics that are largely inefficacious (Peterson 2014).

By the time brand-name companies divested out of Nigeria there was a huge drug shortage problem as multinationals' brand name products had constituted over 90% of Nigeria's drug market. The market was subsequently rebuilt in unpredictable and unanticipated ways. Mostly Ìgbò traders from Eastern Nigeria stepped in to take control of a collapsed national and West African regional private drug distribution system. Traders began to import drugs directly from manufacturers in Asia, Eastern Europe, the Middle East, and South America. Currently, Indian companies command over 50% of the drug market and Chinese companies control nearly 100% of the medical technologies market. These are then sold to large clients as well as other wholesale markets in the West and Central African regions. The growth of this transnational market is quite significant with estimates of over $2 billion in sales estimated in 2009 by Okelola (2009); and McKinsey projects that figure to $4.6 billion by 2026 (Holt 2017). There are over a thousand traders working in Idumota across different levels of official and unofficial business selling to hospitals, clinics, corporations, government institutions and the oil industry.

The simultaneous financialization of the drug industry and the dispossession of African drug industries are exemplary manifestations of racial capitalism (Robinson 1983). For Cedric Robinson, capitalism has never been solely about industrial waged labor or an autonomous system. At its core, capitalism derives its sustenance and expansion from its own origins and similar contemporary iterations: via exploitation of race facilitated by European ideologies of racialism beginning in the 5th century, which Robinson describes as an internal European colonial processes. That is, capitalism does not

homogenize workers and labor across place per se, but expands by "precisely seizing upon racial and colonial divisions, identifying particular regions for production and others for neglect, certain populations for exploitation and still others for disposal" (Lowe 2014, 150).

The kinds of drugs that flooded the Nigerian market are exemplary of neglect and disposal. While the 1970s drugs were primarily brand-name and mostly patented, the new drugs entering unofficial markets were almost all generics meeting the needs of a newly impoverished population brought on by structural adjustment. However, by the early 1990s the structure of the pharmaceutical market appeared out of control, as far as Nigerian government officials were concerned. Research studies and reports indicate that just a few years after the implementation of structural adjustment, fake drugs comprised 30–70 percent of the entire national drug market in Nigeria (Uwaezuoke 1991; Atueyi 2004). For this period, reports also indicated that fake drugs were sold in tens of thousands of illegal places in Lagos State (Atueyi 2004). While current reports indicate that Nigeria's fake drug problem has declined since the 1990s, the United Nations recently declared that West Africa has the worst fake drug problem in the world (UNODC 2009).

Presently, fake drugs comprise anywhere between 30 and 50 percent of the entire West African regional market (Yeboah 2013). These numbers and declarations are epistemologically blurred because while fake drugs are perceived as prolific, their numbers cannot actually be counted or ascertained. But they do receive the priority attention of regulatory officials leaving other important issues rather obscured. These latter issues include the problem of substandard drugs and high levels of drug resistance. Substandard drugs are not intentionally faked drugs, but ones that have too few or too many active ingredients as a result of shortfalls in the Nigerian or other manufacturing processes. Moreover, the most commonly sold drugs, such as older generation antibiotics, often encounter the highest levels of drug resistance – up to 100% resistance for some older generation antibiotics in different parts of the country.[4] But if a consumer experiences adverse or no effects, fake drugs – and not substandard drugs or drug resistance – are usually identified as the culprit.

Global Market Restructuring and Non-equilibrium Theories of the Market

Critically, the structure of the market that includes fakes, sub-standards and non-efficacious drugs has a tendency to consistently reproduce itself. In the 1970s, many drugs found in the Nigerian market were simple antibiotics, antimalarials, and analgesics. But though these drugs were simple, many of them, were also effective and widely sold in North American and European markets. However, as the biologies of numerous bacteria species and malaria-causing parasites changed over time, the imported drugs meant to tackle these infections did not change to meet new medical needs. Instead, an intensive competition for market share had and still has a tendency to encourage the manufacturing, importation, and sale of non-efficacious and often low-quality pharmaceuticals approved for market in the 1970s.

Although elements of this structure were in place at the inception of Nigeria's pharmaceutical market, market divestment and devaluation accentuated that structure. Specifically, when global drug markets were restructured in the 1980s and 1990s, two critical events took place. The first is that manufacturing sites were reorganized. The brand-

name drug industry was already well established outside of the markets of middle- and high- income countries, but with market crashes and currency fluctuations, many companies relocated to – or consolidated their operations in – Asia, especially South Korea, Singapore, Taiwan, India, and China (Virk 2008). For example, the U.S. company, Abbott, manufactures erythromycin in Pakistan, among other places. The lower labor costs give the company higher profit margins. Abbott then sells the product in Nigeria at rather inflated U.S. prices because the company can claim that it is a U.S. drug. This pricing strategy recognizes the buying-and-selling culture in Nigeria. Abbott was the first company to bring erythromycin to Nigeria, which was the only brand in the market. Product recognition and prescribing patterns that do not often substitute high-quality generic drugs for brand-name products (often for fears they might be faked) mean that the original version of the drug can still command high sales.

The second critical event was that while markets were restructuring, labor was rendered cheap; but at the same time manufacturing became too costly in Nigeria. Moreover, an array of long-term SAP imposed taxes on imports, and the state's retreat from providing very basic infrastructure needed for industrial manufacturing (like electricity), made it far more lucrative to import and trade drugs rather than to make them. For example, Nigerian pharmaceutical importers and distributors who do not work in the market, distributing to retailers or clinics instead, gave me several different scenarios for ideal importation strategies. If an importer wants to distribute several drug products, she must first establish a product line that always maintains high sales, such as antimalarials, antibiotics, and over-the-counter painkillers – the most common and fastest sellers in the market. If she is in business for the long term, she looks to smaller, but possibly emerging markets, such as statins (anti-cholesterol products) or anti-hypertensives, where there are fewer competitors because these markets cater to consumers with higher purchasing power. If she works with a U.S. or European company that manufactures brand-name drugs offshore, she may assume that drug quality will remain high, which ensures that she will have a steady income stream.

Traders pay very close attention to how fast products move in the market. If, for instance, customers – especially those who buy in bulk – come to the market asking for a product that is not available there, traders are known to drop everything, figure out where the drug is selling in West Africa, and travel all night long to a market outside Nigeria to buy the product. Or if the price of one over-the-counter generic drug crashes, traders in the market seek out new high-earning products instead; they may alter what stock they carry according to the market's boom and bust dynamics. Thus, existing market practices and market structure are continually reinforced as massive numbers of cheaply priced and largely ineffective (drug resistant) antibiotics and analgesics outpace pharmaceutical needs geared toward other diseases.

These pricing logics not only drive the proliferation of older and inefficacious drugs for the West African market, they also drive "chemical arbitrage" practices leading to fake drugs (Peterson 2014). The principle of chemical arbitrage remains the same as in "price arbitrage", which is the primary mechanism that moves drugs from manufacturer to end-user. That is, drugs are routinely priced differently across national markets due to both regulatory regimes that include price caps on drugs and the manufacturer's discernment of an appropriate price for that market. Wholesale distributors take advantage of the price difference and attempt to buy low in one market and sell high in another

(MacKenzie 2006; Miyazaki 2013). Instead of capitalizing on price differentials, chemical arbitrage means that drug chemistry and drug dosages are intentionally deviated from standard ranges; these practices provide a wider mark-up margin and further arbitraging activities. For example, instead of the usual 200-milligram dose for paracetamol, a trader or distributor can negotiate with a manufacturer to make pills containing only 100 milligrams of paracetamol but label them as containing 200. Or drugs that may not sell well in one market (such as an anti-inflammatory) can be renamed and relabeled to sound like a high-selling drug (like an antibiotic) that is then exported to the Nigerian market, usually at very high price mark-ups (Oparah 2005).

Within the market these products are exchanged via arbitrage practices that directly coincide with traders' attempts to, as Adedotun Phillips (1992, 17) puts it, "hustle the day" or "make it now" in the context of new and unfamiliar goods hitting rebuilt markets and new forms of risk that changed alongside these dynamics. Indeed, practices of exchange, pricing, credit, and labor interact with, and often drive, large-scale as well as nuanced, micro-level market dynamics. For example, pricing strategies and price wars not only create uncertainty over a drug's reliability and point of origin, but they also present numerous ways of hedging risks against business practices that allow one to derive additional cash from exchanges in the distribution chain. Moreover, credit practices became tied to labor and high-risk entrepreneurialism. A trader may get drugs on credit from a marketing representative and then cannot sell them because of a sudden (and frequent) currency devaluation, or the price of a drug in the market suddenly drops drastically, or a drug order has arrived from abroad and it is too close to the expiration date and cannot be sold. Any one of these scenarios and many more could mean the end of someone's business. As a result, uncertainty always undergirds valuation and volatility is always anticipated.

These practices of hedging and multiple vertical exchanges emerged in order to adapt to extreme market volatility set in motion by pharmaceutical financialization and IMF structural adjustment programs in the 1980s. International financial institutions assumed that structural adjustment programs would stabilize African economies (World Bank 1981). However, the stabilization models did not represent economic reality (Stein 2008). According to these models, market equilibrium – a state in which economic forces such as supply and demand are balanced – can be achieved because the market is assumed to always move toward the most advantageous conditions and therefore maximize society's welfare. Market equilibrium was never achieved in Nigeria or for transnational pharmaceutical markets. As several scholars have shown (Cooper 2011; Peterson 2014; Sunder Rajan 2017), pharmaceutical capitalism is marked by constant capital crisis, which is most pronounced in world regions where the afterlife of pharmaceutical financialization, structural adjustment and other dramatic economic liberalizations have deemed market volatility as a permanent artifact.

Yet Yorùbá market theories have long anticipated the *non-equilibrium* nature of markets. This is relevant because Idumota is located in Yorùbáland. It constitutes many Yorùbá market dynamics even though Ìgbò wholesalers command much of the pharmaceutical trade. In his work on Yorùbá markets, Bernard Belasco juxtaposes European classical economics and Yorùbá notions of market dynamics (1980, 21–39). Yorùbá theories of the market are a microcosm of the larger world: all material and human imperfections are located in the market, where market disequilibrium amounts to the potential for "cosmic, existential and social disaster" (26).

Market uncertainty and risk are indexed by religious and cultural practices such as trading with unknown people or encountering strangers in the market. As Olúwọlé Tẹ́wọ́gboye Okéwándé (2020) explains, the Yorùbá divination practice of Ifá is completely inseparable from the organization and practices of markets. Moreover, Yorùbá deities are viewed as responsible for chaos in the market, making it divinely irrational (Belasco 1980). But Yorùbá experiences with economic ups and downs; war, displacement, and scarcity; the many times that currencies have changed for new ones, and access to abundance and wealth, which has come and gone since at least the 15th century, in the era of Yorùbá-Portuguese trade have also contributed to anticipations of market volatility.[5]

The analysis of fake and chemically altered drugs depends upon Western assumptions of market equilibrium. These Euro-American assumptions are so unremarkable that the market is not even viewed as an underlying force that gives rise to fake drugs. It is the quality of the *unremarkable* that matters here. Entirely obscuring the role of market dynamics while surveilling the "bad" and "evil" African trader is a process of racialization. Racializing drug fakery turns attention to long held colonial tropes of Black abjectness rather than focusing on the source of the problem – volatile market dynamics created by Euro-American market liberalization that pretends to be a social good maximizing society's welfare. Thus, not only is drug fakery racialized but so too is the characteristic of the market itself. That is, Euro-American theoretical inventions of stable markets (which do not exist in pharmaceutical capitalism) convey the racial and colonial tropes of whiteness that is conflated with goodness and social welfare. It may be strange to characterize the market in racial terms, where whiteness remains unremarkable. Yet, global fake drug surveillance practices (such as technologies used to identify fakes), legal regimes (such as the TRIPS Agreement of the World Trade Organization), and policy implementation (created by governments and NGOs) are built entirely around these racialized ideas of market stability and chaos. In all instances, the focus is on the "who" of fake drugs (African traders), and not on the "how?" or "why?" a volatile market is intertwined with life's chronic instability.

Downward Pricing Pressures and Offshoring after Market Restructuring

The arbitrage dynamics and market practices in Idumota market are not isolated. They represent one point among many in the drug manufacturing and distribution processes. They rely on similar arbitrage strategies that move pharmaceuticals of all qualities across continents. The imported drugs that travel to Nigerian, and indeed all other, markets, are conceptualized, manufactured, and distributed based on the competition emerging from ever-downward pricing pressures, the regulatory regimes of nation-states, and the porousness of borders around the world through which pharmaceuticals must travel.

When I first encountered the problem of fake and sub-standard drugs in Nigeria, the people producing these products were portrayed as operating in the shadows, and their identities remained largely unknown. How could anyone responsible for producing this enormous supply of drugs remain unknown? But there are several avenues that enable local and transnational operations to remain veiled. Perhaps the most important factor driving the hidden circuits of fake drugs is not illicit activity, but the more transparent activity of manufacturing offshoring.

The 1990s speculative wave of consolidations and asset dumping in the pharmaceutical industry converged with the creation of new sites of offshored and outsourced manufacturing in response to increased pressures to reduce costs. Outsourcing is the procurement of goods or services under contract with an outside supplier, and offshoring is the practice of moving or basing a business operation abroad. For example, brand-name companies offshore research and production companies abroad, which in turn outsource to smaller, local manufacturers. There is a great deal of licensing activity and partial merging – up and down the pharmaceutical value chain – from preclinical chemistry to clinical trials (Pore et al. 2008). Opportunities to outsource and offshore pharmaceutical manufacturing and raw material production (materials that are either unprocessed or minimally processed, such as chemicals) became available in the Chinese and Indian economies, both of which were growing rapidly (Mueller and Mintz 2012). The rise of these markets and drug economies was key to the survival of brand-name drug manufacturers. They were also important to the development of a new Nigerian drug market with Chinese and Indian companies taking the largest share of the pharmaceuticals, pharmaceutical raw material, and medical technologies market.

As European- and North American-based companies move to Asia, they close down plants or dump assets in both their home and foreign markets where costs are higher. They also acquire or license to a number of national firms based in Chinese and Indian home markets, which helps to grow these industries.[6] One outcome of increased industry consolidation is that the wealthiest Indian and Chinese companies have been acquiring American and European firms; the industry literature refers to this as "reverse off shoring" (Pore et al. 2008, 103), a misnomer if we understand these activities through the impetus of capital rather than via U.S. and European hegemonic trading power.

In this more recent scenario of Chinese and Indian companies acquiring American and European firms, and vice versa, the focus of expansion is on reduced or abstracted stages of manufacturing. Active pharmaceutical ingredients (APIs) – the key chemical or biological ingredients in drugs – are made in the primary manufacturing stage. China and India are the world's biggest producers of APIs which is a multibillion-dollar industry. They produce APIs for drug companies around the world, including Nigeria. Then comes secondary manufacturing, which is the production of pharmaceuticals in their final form. The third stage is tableting or packing drugs for distribution to wholesalers. Intermediary steps within these stages are also possible, which could include outsourcing a fragment of these manufacturing stages to a local company that makes APIs, for example, within the offshored site.

These activities are further complicated in China, which has a large chemical industry with over 80,000 companies (Bate 2012). Chemical companies can make APIs or cross over completely into drug production itself. But China's drug regulatory agency, the Food and Drug Administration, has no jurisdiction to inspect chemical companies (Bogdanich, Hooker, and Lehren 2007). If it did, it would be especially difficult to regulate simply due to the sheer size of both chemical and pharmaceutical industries – a problem that all national regulatory agencies face. Regulation in any country in the world is designed to oversee manufacturing based on national regulatory laws. But regulatory bodies and their legal mandates are not well designed to oversee the crisscrossing of prolific offshored and outsourced manufacturing, making it nearly impossible to inspect, and sometimes locate, manufacturing premises (Bate 2012). Even though Nigerian, U.S.,

European, and other regulatory authorities have offices in overseas markets, like China, none of those countries, including China, have the capacity to actually inspect and regulate all of these facilities in any rigorous way.[7] It is, therefore, difficult for any drug regulatory agency to guarantee the safety of the national drug supply.

Opportunities for business people became available in offshoring activities, as well as in the outsourcing that occurs in offshored sites. These practices emerged with radical changes in market and state structures in the 1980s and 1990s. They are also tied to "hustling the day", which is about the constant need to manage scarcity within market volatility. For traders, these conditions led to scaled-up pressures to redistribute earnings to extended families and to build infrastructure in home villages. Ìgbò traders drew on long-held ideas in Ìgbò market liberalism, especially the figure of the entrepreneur (Chukwuezi 2001), who creates networks of apprenticeship labor that holds the entire structure of the Idumota market together. Ìgbò theories of the entrepreneur imagine business success as an equality of opportunity but not equality of outcome (Uchenda 2007; Agozino and Anyanike 2007). So with the sheer volume of workers in the pharmaceutical trade and the incredible competition, hustling is fundamental to making it in the pharmaceutical business. It is much more than just getting by. It is about positioning oneself within the drug distribution system in the hopes of making it big, coming out on top – not doing so could mean having difficulty surviving. In this context of immense scarcity and competition, hustling means calculating the minute risks that are present within quotidian volatility. Importantly, hustling the day is embedded in a *racial* capitalism. That is, during the 1980s–1990s global restructuring of pharmaceuticals, companies identified which national markets would be useful for production (North America, Europe and Asia) and which others were expedient for abandonment (African countries). These are "bottom line" line decisions as much as they are racial decisions. Leaving Africans to "hustle the day" in the face of scarcity and abandonment is also a racialized outcome of global market restructuring.

Hustling to make ends meet has reverberations across continents as such practices additionally feed into transnational distribution channels and manufacturing processes. When producers and distributors work together (more often in ways that do not draw attention to themselves), they first ascertain the regulatory capacity of a drug's destination. Different regulatory regimes have different capacities to monitor the various aspects of fake drugs (from drug chemistry to packaging) and fake drug producers and distributors take this into account. Once the regulatory constraints are ascertained, they calculate the lowest amount of API and the cheapest amount of inactive ingredients to create a drug that will make it into the destined market without raising the suspicions of regulators. They hire capillary manufacturing companies to make fake drugs; and there is often far more deviation outside of the standard API range in difficult-to-regulate markets versus those markets that are more rigorously regulated (Bate 2012).

Finished drug products as well as raw materials for pharmaceutical ingredients that are manufactured in Asia move laterally among multiple distributors. At this stage, they can pass through as many as six trading companies before they reach the pharmaceutical manufacturer or wholesaler. As the journalist Katherine Eban has discussed, the lateral moves at this stage are made within an extensive network in the wholesale drug trade (Eban 2005). The network includes distributors, intermediaries, secondary wholesalers, and a vast array of businesses that run the gamut between the official and unofficial,

the licit and the illicit. These traders – diverters, or arbs, as they are commonly called – take advantage of the price differences by buying discounted drugs and reselling them at marked-up prices to other distributors and wholesalers (Eban 2005; Yankus 2006). The distribution chain constitutes many people and companies across global regions, and with each link in the chain involving a new price mark-up. In Europe, arbitraging pharmaceuticals is allowable via parallel import laws, making it an especially pervasive practice (DeKieffer 2006). DeKieffer points out that "[t]he major distributors operate at very thin profit margins, rarely exceeding five percent. If, however, they can purchase inventory at 10% or more below the price offered by the manufacturer, the result goes directly to the bottom line. This has traditionally been too tempting to resist for even the most ethical of companies" (2006). The multiple lateral movements, many of which take place in Europe, do the work of obscuring manufacturing origins. One may never know that drugs or raw materials came from an unregulated or unregistered company, or from a company that is registered but only part of whose manufacturing chain is regulated (Bogdanich 2008).

Distributors draw almost entirely on the regulatory gaps, price differentials, and gray trade links to facilitate the global fake-drug trade, which uses the same distribution routes as trade in legitimate pharmaceuticals. The distribution chain for both intentionally faked and legitimate products relies on free-trade zones around the world, like those in Dubai or the Panama Canal, which are not subject to rigorous inspection and moves on quickly to sites of sale or manufacture (Bogdanich, Hooker, and Lehren 2007). Indeed, counterfeiters use free-trade zones to hide pharmaceuticals' and chemicals' origins as well as to make, resell, market, or relabel fake drugs (*Ibid*). In Dubai, where many fake drugs stop in transit to West Africa, the usual requirement for local ownership of companies is waived, and there are no import and export fees or income tax (*Ibid*). As authorities catch on to the regular use of one free-trade zone, counterfeiters simply move on to new sites that are not well-surveilled.

These examples from the global distribution chain highlight a number of gray areas in which breakdowns in regulation are driven by global drug economies. The massive dispersals in the production and distribution chains make it difficult to discern the difference between intentionally faked or unintentionally substandard drugs because regulatory inspection – of everything from raw materials to finished products – has difficulty distinguishing between them. When they reach markets like Idumota, they are lost to regulatory oversight.

Conclusion: Racial Configurations of Markets and Fakery

Fake drugs are the result of many speculative practices that are employed to cope with market uncertainty. Speculative practices in the drug industry (such as massive mergers and investments in high-risk biotech companies) must be understood alongside lateral arbitrage strategies that speculated on wild currency fluctuations in the Nigerian pharmaceutical market even though they emerged in different contexts. They are two reverberations in a system located in a transnational supply chain that must always anticipate market volatility.

The 1980s pharmaceutical financialization only promised the remaking of its highest earning markets while producing disastrous results for the West African market. In this

sense it was successful from the point of view of Northern-based speculative capital that helped to create renewed profitability for the companies that survived this era of frenzied mergers and acquisitions, characteristic of new market-making. At the same time, these events violently remade new markets and social orders in what was once a significant West African drug market. After the brand-name industry abandoned this market, the prospect of manufacturing home-grown pharmaceuticals were hampered by many conditions (many IMF imposed) that make it impossible to manufacture. In essence, widespread market dispossession essentially wiped out any potential global market competition. The result is a proliferation of substandard, fake, and an overrepresentation of rather non-efficacious antibiotics and antimalarials to the detriment of other needed pharmaceutical classes.

From this perspective, pharmaceutical capitalism is itself *structurally* racialized across several different registers. First, built into the pharmaceutical industry is a structural crisis. Companies find it impossible to meet investor rate of growth demands. They make up for income shortfalls by mergers, acquisitions, developing blockbuster drugs, discontinuing lines of unprofitable yet perhaps necessary drugs for neglected illnesses, among others. Dealing with this crisis means being driven toward constant exponential accumulation. Alongside choices about how to accumulate are constant decisions about how to abandon other aspects of the market. And it is in this abandonment that the market becomes a racialized space of accumulation and disposal.

Second, even though the IMF started embracing its own homegrown ideas of non-equilibrium markets (IMF 2012), those involved with curbing fake drugs – policy makers, regulators, international NGOs and others – critique them as if those drugs are conceptualized, manufactured, and traded in stable market conditions. Here, only "fraudsters" and "evil doers" are the anomaly, not the market itself. The fact that market volatility, and the extreme precarity it generates, is ignored as a primary factor for the generation of fake drugs defaults to a contemporary American and 18th/19th century European characterization of the market as always striving for a natural state of balance. This equilibrium fantasy is saturated in an Euro-American whiteness, while a putative chaotic African market ostensibly defies the norm. It is emphasized here that Yorùbá and Ìgbò theories of the market have characterized markets as volatile and precarious since the 15th century arrival of the Portuguese to West Africa. The implications are that preconceived ideas of equilibrium de facto racialize those who have little opportunity in a deeply precarious system.

These racialized phenomena are not incidental colonial iterations of transnational markets. Rather, race, in addition to capital mobilities, dispossessions, and stagnations, is integral to the making of markets. As many scholars have shown,[8] the racial is a foundational epistemic concept that has long been embedded in the commonness of the human. It is located in Kantian modern thought and modern institutions that emerge out of European philosophical foundations. In a liberal idiom, race is legible only when it appears as incidental, violently expressed, or at least apparent to registers of whiteness. Rather, race and racism have long been instantiated into the epistemology and ontology of modern Man, which Chandler (2013) characterizes as an *architectonic of reason*.

Through such reasoning, racialization naturalizes the criminality of Africans trading in fake drugs rather than the brand-name industry's conscious dispossession of entire African markets. It naturalizes a drug distribution system as "chaotic" rather than seeing

what people had to build in order to survive violent liberalizations. The evidence of this naturalness is that there is no ethical crisis when markets are dispossessed. Rather the ethical crisis gets heaped upon those looking to survive the afterlife of economic liberalizations.

Notes

1. See for example, Omotayo Fatokun (2016) and Jocelyne Sambira (2013).
2. One European exception is Hayek ([1941] 2007, 1967) of the Austrian School who drew on complex systems theory to characterize neoliberal economics within different sets of order, or *non*-equilibrium.
3. For further theorization of whiteness see Harris (1993); and in the context of Africa, see Pierre (2020) and Willoughby-Herard (2015).
4. The Nigerian literature (from the 1980s to present) on drug resistance is vast, which over time marks profound changes across regional geographies. See for example Okeke et al. 2000; Lamikanra et al. 2011; Habib et al. 2003; Aboderin et al. 2009.
5. For examples of this argument see Hopkins 1973; Peel 2000; Falola 1992; Guyer 2004 and Babatunde 2017.
6. In addition to outsourcing and offshoring, the implementation of WTO-mandated intellectual property laws in both India and China (as well as national changes in good manufacturing practice standards) was very effective in reorganizing national industries. These changes meant that medium-sized companies began to consolidate and grow bigger, while many, but not all, smaller companies were squeezed out.
7. Walt Bogdanich quotes Congressional Representative John D. Dingell: "China alone has more than 700 firms making drug products for the U.S., yet the FDA has resources to conduct only about 20 inspections a year in China."
8. See for example Chandler 2013; Ferreia da Silva 2008.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by Directorate for Social, Behavioral and Economic Sciences [Grant Number Science, Technology and Society, # 0829174].

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