

Physician Brain Drain from Sub-Saharan Africa: Exploring the Utility of an Eco-psychopolitical Validity Framework for Medical Migration Research*

Fuga de Cerebros en el Sector Médico del África Subsahariana: Explorando la Utilidad de un Marco de Validez Eco-psicopolítica para la Investigación sobre la Migración Médica

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Abstract. In-depth understanding of any critical social issue requires investigators to use analytical tools that reflect the complexity of the social issue of interest. Toward this aim, I examine the medical brain drain from Sub-Saharan Africa to the United States through the lens of the eco-psychopolitical validity model (see, Christen & Perkins, 2008; Prilleltensky, 2008), an integrative approach that stresses the combined influences of structural factors, individual agency, and power at play in human dynamics and social systems. By adapting the eco-psychopolitical validity model to the study of medical skilled migration, I construe migration as a liberating venture articulated around the triadic process of oppression, empowerment, and wellness. If migrants yearn to breathe free, then émigré physicians are essentially in pursuit of liberation and wellbeing. However, in a world of profound health disparities, where the increasing emigration of medical doctors from resource-constrained countries ultimately leads to loss of lives in the communities left behind, migrant doctors' individual agency and the multilevel contexts that enable or constrain them to emigrate require critical reflection. Some emerging themes and variations of an ongoing qualitative study are examined using the eco-psychopolitical validity paradigm.

Keywords: eco-psychopolitical validity, liberation, medical migration, oppression, wellness.

Resumen. La comprensión en profundidad de cualquier tópico social requiere la utilización por parte de los investigadores de herramientas analíticas que reflejen su complejidad. Con este fin, examino la fuga de cerebros en el sector médico del África subsahariana hacia los Estados Unidos a través del modelo de validez eco-psicopolítica (véase Christen y Perkins, 2008; Prilleltensky, 2008). Se trata de un enfoque integrador que resalta las influencias combinadas de los factores estructurales, la agencia individual y las fuerzas que obran en la dinámica humana y los sistemas sociales. La validación eco-psicopolítica del estudio de la migración de los profesionales médicos, supone observar la migración como una empresa liberadora articulada alrededor del proceso triádico de opresión, empoderamiento y bienestar. Si los emigrantes buscan libertad, entonces los médicos emigrantes buscan esencialmente liberación y bienestar. Sin embargo, en un mundo con profundas disparidades en salud, la creciente emigración de médicos de los países de recursos limitados conduce finalmente a la pérdida de vidas en las comunidades que dejan atrás. Por tanto, la agencia individual de los médicos que emigran y los múltiples contextos que les posibilitan o les impiden emigrar precisan de una profunda reflexión. Algunos temas y variaciones emergentes de un estudio cualitativo en curso son analizados utilizando el paradigma de validez eco-psicopolítica.

Palabras clave: bienestar, liberación, migración médica, opresión, validez eco-psicopolítica.

In the city of Nashville and Davidson County, TN, where I currently reside and collected part of the data presented in this study, there are 3,803 full-time physicians (AMA, 2011) for a little over 600,000 people

(US Census, 2009). Comparatively, as of 2008, there was a total of 1,806 physicians in Ethiopia, 51 physicians in Liberia, 548 physicians in Mozambique, 95 physicians in Sierra Leone, 300 physicians in Tanzania, and 649 physicians in Zambia (WHO, 2011). Put in perspective, this suggests that the combined stock of medical doctors available in these seven Sub-Saharan African (SSA) countries is lower than the number of doctors in the Nashville metropolitan area. It is noteworthy that the combined population in these seven countries (N = 178 million) is nearly 300 times

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larger than Nashville's. Interestingly, the AMA Physician Masterfile (2011) suggests that currently, 1,510 physicians trained or born in the above countries reside and practice in the USA. This number of émigré physicians represents nearly 44% of the combined domestic physician stock currently available in the above countries. This suggests a transfer of scarce resources from very poor countries to the USA.

Overall, there are more than 10,000 SSA-trained or SSA-born physicians currently practicing in the USA (AMA, 2011). What brought them over 5,000 miles away from where most of them trained and were expected to provide healthcare services? A short answer may be: liberation and wellbeing. A more nuanced yet arguably more accurate answer is: it depends. Between December 2010 and July 2011, I interviewed several SSA-trained émigré physicians practicing in the Washington, DC Metropolitan Area, Tennessee, and Michigan. From one migrant doctor's story to another, I examine the dynamics of medical migration using the eco-psychopolitical validity model as the theoretical anchor. The eco-psychopolitical validity framework is an integrative approach that stresses the combined influences of structural factors, individual agency, and social power at play in human dynamics and social systems (see Christens & Perkins, 2008; Perkins & Procentese, 2010; Prilleltensky, 2008). By applying the framework to the analysis of international medical migration, I suggest that by and large medical migrants leave their countries to empower themselves (e.g., professional development), promote their wellbeing (e.g., financial security), and to resist oppression (e.g., structural violence). Before presenting and adapting the model to the analysis of medical migration, I briefly survey the literature to uncover some of the dominant themes and approaches to international migration. After highlighting a few of the main theoretical orientations in migration research, I point out some of the main critiques before presenting the transdisciplinary model of interest. After presenting the eco-psychopolitical validity paradigm, I briefly describe the data collection procedures and the sample in the method section, and then I present the emerging findings from the ongoing data collection.

Themes and Approaches to Migration Research

Since the pioneering work in geography by Ravenstein (1885) who described the first "laws of migration", more contemporary research by anthropologists, sociologists, political scientists, and historians has focused on the emergence of transnational migrant networks and the formation of new communities under conditions of globalization, and the social meaning of multi-locality (e.g., Castles, 2002; Massey, & Taylor, 2004; Hollifield, 2004; Paterson & Kelley, 2000; Portes & De Wind, 2004; Vertovec & Cohen, 1999). Schultz's

discovery of the importance of human capital in economic growth (e.g., Schultz, 1961) provided empirical grounding to earlier macroeconomic investigations of human capital flight and international taxation policy (e.g., Bhagwati & Partington, 1976; Grubel & Scott, 1966; Johnson, 1965), and more recent theorizing on the rate of return to education and brain drain (e.g., Borjas, 2000), the measurement of international skilled migration (e.g., Beine, Docquier, & Marfouk, 2007), remittances (e.g., Ozden & Schiff, 2006), and the contested paradigm shifts from brain drain to brain circulation and brain gain (e.g., Beine, Docquier, Rapoport, 2008; Rapoport, 2002; Saxenian, 2005; Schiff, 2006). A brain waste predicated on the low transferability of skills by migrants with limited English proficiency has also been described (Mattoo, Neagu, & Ozden, 2008). Psychological studies of international migration are limited and the existing research focuses primarily on immigrants' adaptation, resilience, and assimilation in the dominant culture of the host country (e.g., Berry, Phinney, Sam, & Vedder, 2006). More idiographic analyses including a psychodynamic perspective on the impact of migration on the personal identity of immigrants have been suggested (e.g., Akhtar, 1995). The ubiquity of migration is also triggering research interests among religious scholars, and conceptual efforts to theorize migration from a theological standpoint are well underway (Groody, 2009).

Amidst the constellation of theories that have sought to explain the determinants of international migration of skilled migrants, three perspectives with divergent loci/levels of analysis stand: the individual cost-benefit model anchored in neoclassical economics; the world systems framework which links international migration to the historio-structural Western domination of the rest of the world; and the migrant networks promoted by anthropologists and sociologists.

The neoclassical economics model of migration. This popular microeconomic model operationalizes the pull and push factors of migration in terms of costs and benefits (Todaro, 1969). This cost-benefit model underscores the primacy of wage differentials and posits that voluntary migration is the calculated outcome of a rational appraisal of the potential costs and anticipated benefits of emigration. Grounded in human capital theory, the model suggests that would-be migrant doctors aware of the wage differentials between themselves and their US-based counterparts will freely move from SSA to the USA to maximize their earnings in a measure sufficient to offset the tangible costs and emotional toll associated with their expatriation. The decision to leave may emanate from the individual migrant or may represent a family decision. Either way, migration is purely a calculated strategic economic investment. While there is little doubt that economic opportunities influence migrants' decision-making, a salient point of tension with the

neoclassical economic model is that it reifies the person as a completely selfish, unswervingly rational, and perpetually profit-driven actor. Accordingly, there is little place for sacrificial and altruistic behavior in the heart of *homo economicus*, even if the latter is a doctor, that is, a caregiver. The neoclassical economic model has also been criticized by structuralists (e.g., Portes & Wanton, 1981) for failing to account for the context within which migration decisions are made. These critics have argued that “profound transformations of social and economic institutions mobilize labor for reasons beyond individual utility maximization” (Massey, 1990, pp. 6-7). Meanwhile, Arango (2004) has observed that the neoclassical explanation “floats between the obvious and the unrealistic” (p. 20) when applied to today’s reality, and that political factors are currently far greater determinants of people’s mobility and migration selectivity than wage differentials.

World systems theory. The atomistic focus of the neoclassical model of international migration is countered at the other extreme by exponents of world systems theory (e.g., Wallerstein, 1974; Portes & Walton, 1981; Sassen, 1988). This theory explains international migration in terms of disruptions and dislocations arising from the historical exploitation of poor peripheral economies by wealthier nation-states at the core of a Western-dominated world system that took shape starting in the 16th century and has sustained itself through a system of penetration in the peripheral economies that included in a distant past slavery; in a recent past colonialism; and currently includes the neo-colonial regimes and the multinational corporations. The significant number of Congolese doctors in Belgium, of Mozambican doctors in Portugal, of Senegalese physicians in France, or Zambian doctors in the UK reflects the neocolonial bonds that link former colonies to their former colonial powers. In the same vein, the standardization of medical curricula, research methods, and medical practice requirements across countries, and the worldwide adoption of English as the standard medical language, reflects international arrangements strongly tilted toward the exploitation of foreign medical graduates by the United States and the UK (Cheng & Yang, 1998). The major demerit of the world systems framework is that the theory almost completely disregards the individual agency of migrants, who are viewed merely as “passive pawns in the play of great powers and world processes [governed by] the logic of capital accumulation” (Arango, 2004, p. 27).

Migration networks. Migration networks represent a meso-level analysis between the two reductionist interpretations highlighted above. The centrality of social networks has been stressed in migration theories and has been widely investigated (Lomnitz, 1977; Massey, & Taylor, 2004; Portes & Bach, 1985; Vertovec & Cohen, 1999; Tilly, 1990). Migration networks are sets

of interpersonal relations that link the émigrés with relatives, friends, fellow colleagues, and compatriots at home and in the host country (Arango, 2004). They function both as a form of social capital and a circular and cumulative causation of migration (Massey, 1990). Many people move because other people with whom they are connected emigrated before them and assisted them in the process. The behavior is reciprocated from one cohort/wave to another. Once begun, these dynamics become self-sustaining (Boyd, 1989). The concept of migration networks provides insight to understanding why transnational migration endures and increases over time, but not necessarily how it begins. Moreover, it is doubtful that there is no point of saturation in migration. It is even more debatable to suggest that the remaining medical personnel who live and practice in SSA are doing so because they lack associates or family members in the USA or other OECD countries capable of assisting them. Krissman (2005) has criticized the migrant networks model for failing to consider non-hometown agents and actors in the channel of migration. Investigations of US-based “sham universities” and English language schools actively involved in the immigration and the long-term stay in the US of economic migrants turned international students have been widely reported (e.g., Federal Bureau of Investigation, 2009; Hopper, 2011; Martinez, 2011; Semple & Manrique, 2009).

In sum, any linear or one-dimensional analysis of broader structural factors, problematic institutional arrangements, social networks, and micro-economic interests cannot sufficiently account for the emigration of medical doctors from resource-constrained countries. A valid theory of migration needs to consider all these factors not in isolation or serially, but within an integrative framework. Toward this goal, I examine the utility and applicability of the eco-psychopolitical validity model in the migration of SSA-trained medical doctors.

The Eco-Psychopolitical Validity Framework

The eco-psychopolitical validity framework is conceptualized as an integrative model involving three interrelated but distinctive processes: wellness, oppression, and liberation/empowerment (Christens & Perkins, 2008; Prilleltensky, 2008). At the core of the concept of psychopolitical validity lies the critical issue of power. Whether conceived in terms of embodied capability, a dynamic of social systems (Fryer, 2008; Smail, 2002), or the subjective expression of the societal distribution of the latter, social power acts to realize or hinder personal, relational, or collective needs (Prilleltensky, 2008). Whereas power requires elements of agency/volition (ability, capability, skills, or talents) and structure/ external factors (opportunity) to meet or thwart migrants’ needs, wellness refers to a state where

personal, relational, and collective needs of the migrants are collectively met. As such, the state of wellness stands in opposition to the state of oppression.

Oppression is a state of prepotency essentially characterized by asymmetric power relations. Accordingly, it may be defined by any relationship of control, deprivation, discrimination, exclusion, exploitation, objectification, or subservience between the oppressed and the oppressor. As a process, "oppression involves institutionalized collective and individual modes of behavior through which one group attempts to dominate and control another in order to secure political, economic, and/or social-psychological advantage" (Mar'i, 1988, p. 6). Considerations of ecological validity suggest that the above definition of oppression needs to be broadened because nature and the physical environment can also be highly oppressive (the drought-induced ongoing famine in the Horn of Africa and the recent tsunamis in Japan are just a few examples). Applied to skilled migration, the oppressors may include any social actors (e.g., corrupt and incompetent government officials, weak institutions, or authoritarian political leadership) and non-human actants (e.g., HIV/AIDS pandemic, deficient infrastructures) that conspire against the welfare of would-be migrants, that is, the oppressed.

Arguably, oppression is never totally complete but always ongoing and often resisted. To persist indefinitely, oppression must ultimately involve the approval of the oppressed because "the oppressors, who oppress, exploit, and rape by virtue of their power, cannot find in this power the strength to liberate either the oppressed or themselves." Indeed, "only power that springs from the weakness of the oppressed will be sufficiently strong to free both" (Freire, 1972, p. 44). For oppression to be deconstructed then, the oppressed must acknowledge their own complicity in creating their condition (Fanon, 1963). This conscientization effort is a prerequisite to resistance and sets the stage for the unfolding of liberation (Freire, 1972).

Prilleltensky (2008) builds on Eric Fromm's dual conception of *freedom from* and *freedom to* in defining liberation. "Liberation is the process of overcoming internal and external sources of oppression (freedom from), [in the] pursuit of wellness (freedom to)" (p. 128). Examples of external sources of oppression from which the skilled migrants aspire to be freed may include arbitrary regulation, employment discrimination, underemployment, ethnic and gender discrimination, human rights abuse, precarity, and religious persecution. External sources of oppression are closely linked to Amartya Sen's (1999) referent of unfreedoms. According to Sen, human development necessitates the removal of major sources of unfreedoms, namely, poverty, tyranny, poor economic opportunity, systematic social deprivation, neglect of public facilities, intolerance, and hyperactivity of repressive states.

Freedom from internal and psychological sources

implies acknowledging and overpowering various psychological conditions that hinder one's subjective experience of wellbeing: anger, anxiety, fear, despair, self-distrust, self-loathing, shame and guilt, internalized intimation of inferiority (Bartky, 1990; Fanon, 1963; Prilleltensky, 2008). Alternatively, liberation to pursue wellness (freedom to) refers to the process of securing instrumental freedoms including "political freedoms, economic facilities, social opportunities, transparency guarantees, and protective security" (Sen, 1999, p. 10) in order to meet personal, relational, and collective needs (Prilleltensky, 2008). In sum, the concept of psychopolitical validity suggests that migrants are essentially in pursuit of liberation and wellbeing.

Additionally, ecological validity stresses the relevance of the context within which the psychopolitical act is performed. The ecological approach transcends the evaluative space of individual agency and invites a critical examination of all significant environmental influences (physical, economic, sociopolitical, institutional, cultural, etc.). In practice, this means the ability to closely examine the gamut of interconnections and transactions between closed and distant actors and environments. Its roots can be traced to the early works of Kurt Lewin (1935), Henry Murray and colleagues (1938), or Baker and Wright (1955) on person-environment interactions. However, it is Uri Bronfenbrenner (1979) who popularized the ecological framework through his transactional description of the person and his/her environments. At the core of the ecological model lies the idea of interconnectedness. "The principle of interconnectedness is seen as applying not only within settings but with equal force and consequence to linkages between settings, both those in which the [would-be migrant] actually participates [(e.g., migrant networks)] and those he/she may never enter [(e.g., the IFIs)] but in which events occur that affect what happens in the person's immediate environment [or microsystem]" (Bronfenbrenner, 1979, pp. 7-8). Contemporary representations of the framework are more or less adaptations of Bronfenbrenner's model.

Consistent with Bronfenbrenner's and other ecological representations, the three dimensional framework adapted in Figure 1 below suggests at least three levels of analysis (micro/individual, meso/relational, and macro/institutional) within any one of the four ecological domains identified in the depth dimension of the figure: political, economic, social, and physical capital. Unlike some of the previous ecological models, the proposed framework contains a temporal dimension, which incorporates processes of liberation, namely; oppression, empowerment, and wellness. The order of these three stages is somewhat arbitrary given that the person or the community may need a modicum of wellbeing to undertake the challenging task of liberation, which over time, should lead to an increased amount of wellness (Christens & Perkins, 2008).

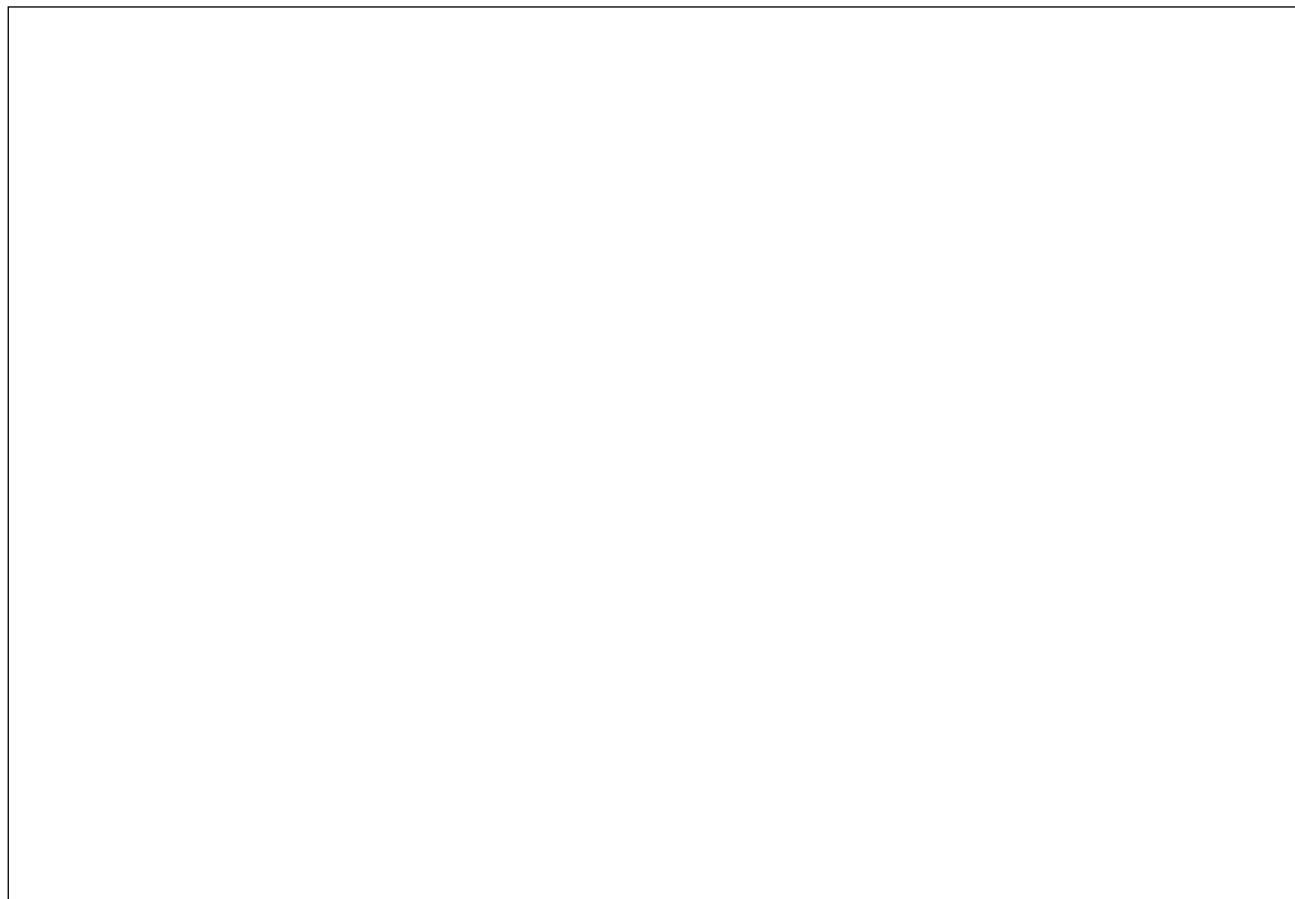
Hence, the temporal dimension supporting the stages of empowerment captures the idea of transformation (i.e., structural change over the long term), and does not suggest a linear reading of the process.

The location of the political capital in the front view of the three-dimensional model, while reflecting a focus on the insidious yet overlooked political dynamics at play in the process of skilled migration, does not necessarily assert the primacy of political capital (or its lack thereof) over the other domains. Furthermore, power is not exclusive to the political environment and should be construed in a Foucaultian perspective as omnipresent across domains, disrupting “the dichotomies of macro/micro, central/local, powerful/powerless” (Kothari 2001, p. 141). In other words, everyone is subjected by power and could be oppressed at any given time and place. Likewise, everyone possesses some power and may act as oppressors in a given context (Prilleltensky, 2008). Hence, in order for the liberative project undertaken by the oppressed to have its full meaning, the oppressed should recoil from identifying to the oppressors, and should instead strive to restore the humanity of both (Freire, 1972, p.44). The Ethiopian doctor who leaves both his patients and students at the Gondar College of Medical Sciences in Addis Ababa, Ethiopia to resettle

in Washington, DC for a fresh start is asserting his right, freedom, and power. He may have chosen to leave because his professional aspirations were compromised by some political arrangements unfavorable to his professional development. By doing so however, he may be indirectly inflicting great harm, intended or not, not merely to his patients and students, but to the health system and institution-building of Ethiopia (Kapur & McHale, 2005).

It is difficult for all practical purposes to isolate or dissociate the political from the economic, or from the social environments; and, even though the various domains or capitals appear independent from each other, they should be viewed as interconnected through transactional ties. It follows that a valid analysis of medical migration from a transdisciplinary perspective will necessarily appeal to some elements of political, economic, and socio-cultural capital. For this reason, the cells in Figure 1 are filled with several probing items that are not exclusive to the political domain. Likewise, a valid ecological analysis will involve multiple levels of evaluation/intervention including: micro/personal, meso/relation, and macro/community/institutional levels. In short, it is an ambitious and difficult task to adequately address all the potential questions contained in the framework. The three-

Figure 1. Ecologically and Psychopolitically Valid Framework for Skilled Migration (adapted from Christen & Perkins, 2008; Prilleltensky, 2008)



dimensional representation suggests 36 potential research questions raised by the model.

The present paper stems from a study currently undertaken in fulfillment of a doctoral dissertation requirement in community research and action. It presents some emerging themes from the ongoing data collection and investigates the utility of the eco-psychopolitical validity framework in critically examining the dynamics of international medical migration. The research question that structures this analysis is: What factors and reasoning are used, both for and against, to explain the decision to leave medical practice in SSA and come to the USA?

Method

Sample and Procedure

The data collection instrument consists of a semi-structured interview guide and a demographic data form. I used the AMA Physician Masterfile to identify all the physicians, licensed or resident, who were trained or born in a country located in the SSA region and are now living and practicing medicine in the USA. The Washington, DC metropolitan area was chosen as the primary sample frame owing to the cosmopolitan nature of the region. I purposefully selected a heterogeneous sample of physicians on the basis of geographic proximity, country of origin, gender, and length of stay in the USA. I made contact with prospective participants by phone. Most members of the initial sample were not interested in participating for various reasons ranging from unavailability to undisclosed personal reasons. I modified my initial recruitment strategy accordingly and recruited several doctors through a snowball sampling method, with the initial interviewees serving as recommenders. Consistent with IRB policy, all respondents participated voluntarily after reading and signing a consent form. The data collection is still ongoing. Respondents' names used throughout the paper are pseudonyms.

As of June 2011, there are a total of 10,776 SSA-born or SSA-trained physicians (including 27% women, $N = 2,953$) in the AMA database. They represent 37 SSA countries and account for 8% of the total stock of doctors available in the entire sub-continent. A descriptive analysis of this population is ongoing and will be published as a separate paper. I interviewed 30 physicians (21 men, 9 women, $Mean = 43.3$, age range: 29-66 years) between December 2010 and July 2011. All are immigrants from a country located in SSA, and all but one came to the USA after completing their medical training and working in their countries of national origin for at least one year. The range of experience between the most senior and the most novice doctor was 32 years. The oldest participant doctor immigrated to the USA from Liberia in 1982 and the

youngest emigrated from Sudan in 2010. The majority of them are fully licensed in internal medicine, while nine of them are still in residency. Twelve are naturalized US citizens and eight more have expressed their intent to become US citizens in the near future. Only one immigrant from Ghana has stated unequivocally that he has no plans of becoming a US citizen. Others are undecided. Owing to constraint of space, the stories of selected participants are told in this paper.

Findings

The tales of two doctors

Dr. Obi is a 32 old year Nigerian-trained doctor currently in residency in internal medicine. He is married with three small children and lives in the Washington, DC metropolitan area. Five years ago, he moved to the USA from his native Nigeria. I probed him on the circumstances and reasons that led to his decision to leave Nigeria and relocate to the USA. Dr. Obi explained:

While in medical school, towards the end of the penultimate and final years, the interest started changing for most of us, realizing the limitations of practicing medicine in Nigeria, especially the economic limitations. It was like a cul-de-sac. So, we started analyzing our consultants, our teachers to find out how their lives were. We also started making contact with some people who have left, and who were practicing in the US and Europe. So, most of us, including me, automatically would have preferred to leave. If I didn't come here through my wife [who is a US-born second generation migrant], I think I would have also made a plan to leave Nigeria purely on economic reasons.

Dr. Dehna, a 30 year-old female doctor from Ethiopia, has a passion for teaching. After graduating from medical school in 2004, she worked as a lecturer in a government-funded medical institution for one and a half years before immigrating with her husband to the USA after a brief educational stint in Europe. When asked about her reasons for leaving Ethiopia, she reported:

I don't remember exactly at what point I decided that I wanted to practice here or practice there...You know practicing medicine back home is also very precious; I mean you help people. You see a lot of people even though there are many factors affecting your practice there; I mean the resources are limited. Plus, our government is a corrupt government. There are so many political activities going on with practicing medicine. But, I don't remember having a specific time when I decided, ok, this is now the time when I have to go out of this country and practice outside...It's just one thing that led to another. It's just a chain of events happening, and I am here. But I never planned to do my residency here and I never planned to leave my country.... I came to the US as a visitor, and then later on I decided to stay.

When Dr. Dehna speaks about some of the most memorable aspects of her professional experience in Ethiopia, it becomes evident that her native country is missing not only a passionate teacher but a caring and compassionate healer:

I remember when I was an intern during my last year of medical school, I had a patient, seven year-old, who had leukemia. You know leukemia is a disease of the bone marrow.... His mom and his dad didn't believe in blood transfusion. They believed that if they give blood they will die or something bad will happen to the family.... He had brothers and sisters, but they all denied him blood. They said God gave him to us and if He has to take him, He has to take him. We are not supposed to give him blood because it is a taboo.... We requested blood from the blood transfusion bank but could not get any. So, I had to donate blood. I gave him blood and even then his hemoglobin was like 3; 3 is very low.... His hemoglobin went up, may be like 5 units. Still, his bone marrow could not produce more cells... I think he stayed at the hospital like a month, after that he died.... So, I was really, really saddened and depressed, and I decided that I will not go into pediatrics. I can't tolerate losing kids.

The contrast of the two portraits presented above provides some seed for an eco-psychopolitical interpretation of the emerging themes and variations. As described above, the proposed conceptual framework is anchored on the premise that migrant doctors are in pursuit of liberation and wellbeing.

Emerging themes and variations

The pursuit of individual and relational wellbeing

Whereas Obi epitomizes the neoclassical case of the economic migrant, and his story underscores the centrality of individual agency as a determinant of medical migration, Dehna's profile can hardly fit that of *homo economicus*. An interesting detail about Obi's story is that he was already married to a US citizen while in Nigeria. In other words, he was already part of a transnational migration network, with his US-born wife serving as the principal node of the network. For him, the economic incentives to come to the USA were very high while the political restrictions to enter the USA were minimal, owing to his matrimonial affiliation. His is a case in which the pursuit of the individual economic wellbeing of the migrant is compounded by a relational need to reunite with a wife in the country of destination. After completing his mandatory one-year internship at a local hospital, he left Nigeria when the first opportunity presented itself. It is noteworthy that Obi had a comparative advantage to his colleague Dehna, who probably needed some costly legal or institutional assistance to secure a long-term legal stay in the USA. Her confession speaks for itself: "I came

to the US as a visitor, and then later on I decided to stay."

The quest for wellbeing is a legitimate, natural, and an inalienable right. However, to seek one's individual or relational wellbeing independently or at the expense of the wellbeing of the community is highly problematic in the case when the would-be migrant is a physician from a country with very few physicians. The modern version of the Hippocratic Oath emphasizes doctors' social responsibility: "I will remember that I remain a member of society, with special obligations to all my fellow human beings, those sound of mind and body as well as the infirm" (Lasagna, 1964). While doctors may have a diverse mix of reasons to choose medicine as their career, "there is general agreement that patients' interests must take precedence over physicians' financial self-interest and that professionalism also entails service to vulnerable populations and civic engagement" (Rothman, 2000, p. 1284). In the same vein, there is a general understanding that the *prima facie* function of doctors is that of healers, and the ultimate goal of medicine is to be in service of welfare/wellbeing. At its essence, the practice of medicine is simply to care for other human beings (The Arnold P. Gold Foundation, n.d.). German neuroscientist Rudolph Virchow (cited in Farmer, 1999) stressed doctors' duty of stewardship over the most vulnerable when he invited them to become the natural attorneys of the poor.

Thus, when the would-be migrant is a medical doctor from a country with a severe shortage of medical staff and a host of pandemics such as HIV/AIDS and malaria, as is the case in many countries in SSA, there must be a more compelling argument beyond the economic rationale and relational needs. The argument should be even more persuasive because the doctors move with some assets that do not totally belong to them. In most cases, his/her medical education was paid for by the taxpayer.

Medical training "forcing" as a source of oppression

I began all the interviews with the same basic question, asking the émigré physicians about their reasons for choosing medicine as their career. While most of them reported that they loved being a doctor and would make exactly the same career choice if they could start over again, a recurrent theme that transpired from their responses was the fact that, besides medicine, they had very limited career options in their native countries. It is worth mentioning that in nearly all countries in Africa and most of the world, students enter medical school directly after high school. In other words, they do not have the possibility to complete a four-year liberal college education that could help broaden the scope of choices and opportunities available to them.

Obi described his encounter with medicine in the following terms:

In Nigeria, at the time when I attended high school, it was somewhat a norm; a bandwagonism, where people who were doing very well in secondary school automatically aimed for supposedly the hardest courses which included medicine, law, engineering. Those who were doing pure sciences went into medicine. So, obviously that was the primary reason, force that made me to go into medicine because I belonged to that group.

While Obi does not regret practicing medicine in the USA and recognizes that the monetary incentives are “hard to resist”, it appears evident that some meaningful career counseling could have helped Obi discover his true vocation and eventually fulfill himself professionally elsewhere than in medicine. He confided that he would likely have studied economics or business management if the opportunity had been presented. Oshie, a 51 year-old Ghanaian native who has been living and practicing emergency medicine in the USA for the last 20 years expressed a similar sentiment:

I didn't think I really wanted to become a doctor; ...I probably would have liked to become a mathematician or a musician. It just happened that the choices back home at the time I was growing up were very few in terms of what you end up doing after high school. As long as you were doing well there were choices, for those who were science-inclined, between engineering, medical school, and perhaps teaching. I didn't want to become a teacher. While I was better in math, somehow my math teachers in 6th grade were not... So, I made a conscious decision and was determined not to fail. That's how I chose to do biology. That's how I ended up in medical school.

It is important to observe that almost 20 years separate these two physicians both chronologically and in terms of their entrée in medical school and practice. Moreover, one was trained in Nigeria while the other was trained in Ghana. Yet they described an experience and a context strikingly similar. This call to mind Bronfenbrenner's (1979) observation that “within any given culture, settings [or organizations] of a given kind tend to be very much alike whereas between cultures they are distinctively different” (p. 4). This observation is worth stressing because the educational system and the medical culture of Nigeria and Ghana can be considered as part of the same whole. This assumption applies to all Anglophone SSA countries, and to some extent the entire region of SSA, and guides the present study.

The sentiments echoed by Obi and Oshie are not necessarily the most prevalent. However, they are profoundly telling in that these two doctors recoiled from any social desirability and acknowledged the unhealthy reasons they became doctors. Acknowledging the unhealthy reasons one became a doctor could indeed be a sign of growth (Siegel, 2009). They admitted without detour that the desire to relieve suffering, to comfort the afflicted, and to cure the sick was not

their prime reason to embrace medicine. To use the words of Obi, medicine was “forced” upon them because they were good, and probably very good, in the sciences. Admittedly, “the primary imperative of a physician is to be skilled in medical science” (Groopman, 2006, p. xiii). However, if a medical school admits medical students exclusively on the basis of academic merit without assessing the candidate's fit, values, and ulterior motives, it could compromise the sacred mission of healing.

This does not necessarily suggest that Obi or Oshie lack the important attributes of compassion, empathy, and caring, which in tandem with healing are hallmarks of medicine. Rather, it suggests, at least in part, that the limited amount of career options available to them at the end of high school created a context of choice-deprivation that compelled them to choose a professional destination that they admittedly did not want to choose. If they could start their career all over, one doctor would become an engineer and the other would become a musician. Judging by their words, medicine was merely a stopgap, which ultimately served as a passport for their expatriation.

Likewise, the context of choice-deprivation described by the doctor émigrés further compels us to acknowledge the reality of structural oppression/violence so pervasive in many settings across SSA. Structural violence refers to the social and economic conditions that determine who is at risk for experiencing some significant decrease in their quality of life and who is shielded from these assaults (Farmer, 1996). Accordingly, stunted economic opportunity is a prominent feature of structural violence. Many of the émigré doctors whom I interviewed acknowledged that financial capital was a very important determinant in their decision to leave and an even stronger protective factor against a potential return. Given the extensive medical needs across SSA, none of them were unemployed at the time of migration. But, this does not suggest that they were not income-deprived. I infer meaning from their various statements that they considered themselves underemployed and relatively poor when compared to political bureaucrats.

Dr. Yao (male, 47 years old, practiced for six years in Ghana, immigrated 14 years ago):

I believe that I should go back and help my country. That's why when you asked me about the US citizenship I wasn't so sure if I want to be a citizen here... I would like to go back and help my country.

This narrator: Why so?

Dr. Yao: Hmm, I don't perceive myself becoming an American and staying here for the rest of my lifetime. I was educated in Ghana and I need to give back. ...At least if I am not able to do clinical work in my latter time [after return], I can at least teach in a medical school.

This narrator: From your answer, it is apparent that you really believe that you have some social responsibil-

ity which is to give back to the country that trained you, but how important do you perceive your responsibility to be? ...I guess, there are always trade-offs [i.e., something to lose]. Most migrants may say that they want to return, but when push comes to shove you'll see them around 25, or even 40 years later. I mean, how important is your urge to return?

Dr. Yao: Yes, I perceive my social responsibility to be important. It is kind of contradictory as to why I came here. They needed me in Ghana the time I left. But by that time my finances were very bad, and what happens is that these politicians, somebody who is low down in educational background and don't have much to offer, because they go into politics...more attention was given to them than to doctors who were actually on the field working. So it was out of frustration and for financial reasons that I came here...When I started having kids and school fees I couldn't afford to pay, I decided to come. What was infuriating is that these politicians who don't know much of anything, but because they were singing the song to princes who were in power, they had money here and there and they were misusing money. So, when you sit back and think, I am on the foot working day and night, yet at the end of the day I can't even afford my children's school fees then what is the use for me being here? You need me here, but it looks like you don't want me here. So the country's priorities were displaced.

Discontents about the political leadership

The income-deprivation and the cynicism about the political leadership conveyed by Yao in the above exchange are glaring. His resentment of the political bureaucrats was not unique. Dehna was even more outspoken. Her dislike of the political status quo was unconcealed. I asked her the following question: "What part of Ethiopia don't you miss at all?" She replied without reservation and almost with a knee-jerk reaction: "The government!" And she further elaborated, talking about Meles Zenawi, the current head of government in Ethiopia:

That guy he is a criminal! ... I remember one day our government officials were involved in some type of talk in front of the international media, and they asked him: 'You know, many doctors are fleeing the country because you are not paying them much. To get any incentive from the government one needs to be in service for 10 to 14 years, and by the time you are done with that service you are old.' So they were asking him if there is anything he can do to prevent that, and he said: 'Oh, that's fine. My country doesn't need doctors. They can all leave to wherever they want.' Yes, that's what he said in front of the big international media... I mean, if you are not recognized; if you are not rewarded for what you are doing, then what's the purpose for staying there? ... If you ask me even right now to go to Ethiopia and tell me that you will pay me millions I won't go, because I want that government to be done with. There is no freedom in that country... Our current political environment is not what I want. I can't live in that type of environment.

The abrasive remarks of Meles Zenawi, the prime minister of Ethiopia, that his country does not need physicians have been documented (see e.g., AndyMedia). However, it may be an overstretch to conclude that there is no political will in Ethiopia to mitigate the severe shortage of health workers in the country. As recently as April 2011, a report from the BBC's Health Check program suggests that the Ethiopian government has been making significant investments through *Ethiopia's Health Extension Program* to recruit, train, and deploy "health extension workers" (i.e., community health workers) to bring healthcare to rural communities throughout Ethiopia. The government of Ethiopia is reportedly designing a scheme whereby these health extension workers will eventually become family doctors after several years of professional development and service. The program started in 2003 and has already trained 32,000 local women (two women per village) to give advice on immunization and preventative health, to diagnose possible cases of TB and malaria, and to deliver babies (Health Check, 2011).

As impressive as the above effort may appear, the latest data from the Global Health Observatory suggest there were merely three community health workers per 10,000 Ethiopians in 2007. Only 6% of births in Ethiopia were attended by skilled medical personnel in 2005, while over 50% of children under five years were stunted. Meanwhile, over 10% of children died before their fifth birthday in 2009 (WHO, n.d.). There is an excess of 3 million cases of malaria in Ethiopia. Among adults (15-49 years old) with advanced HIV infections, 45% did not receive antiretroviral therapy in 2009. Thus, to dismiss the relevance and need for doctors in Ethiopia appears not only insensitive but outright irresponsible on the part of a head of government. Moreover, for Ethiopia's *Health Extension Program* to be viable and sustainable in the long term, doctors necessarily need to be intimately involved in its development, as they are the ultimate trainers of health extension workers.

Macro/international structural oppression

Qualitative data analysis rests upon the ability to infer proper meaning from statements. An alternative interpretation of Meles Zenawi's remarks implies that the Government of Ethiopia could not do much to resist the powerful currents of globalization and entice the doctors to remain in the country. Ethiopia is indeed a very poor country competing against all odds to train and retain a viable medical workforce in a global context rife with disparities and inequities. Globalization and technological advancements have compressed time and space to the extent that the geographical borders of nation-states have become glaringly porous for economic/trading purposes. Speaking about the oppressive overreach of economics, Rowe (2000) aptly noted:

In economics there is no concept of enough: just a chronic yearning for more, a hunger that cannot be filled. This requires that all life must be converted into a commodity for sale. The result is a relentless process of enclosure ... [which] is encroaching upon every aspect of our individual and collective beings... We buy looks from plastic surgeons, mental outlooks from pharmaceutical companies, the activity of our bodies from 'health' clubs. (para. 11-12)

Indeed, health is treated as a commodity in the US and health service providers are increasingly in demand worldwide owing to the medical needs of the growing aging populations of the Western world. The Ethiopian physician is very well aware of this fact. Short of physical coercion and wanton human rights violation by authoritarian governments, there is no way to prevent him/her from departing the native land if the latter is determined to leave. And if the would-be Ethiopian migrant doctor cannot make it to the US, he/she can always go to Botswana or South Africa. The commoditization of healthcare compounded by a relative scarcity of health providers in North America is a strong pull factor at the onset of the SSA physician brain drain.

Under constraint of resources, a minimum level of sacrifice would be expected on the part of all social actors, including doctors. Thus, I prompted the respondents to comment on the perceived lack of patriotism of the younger generations of SSA doctors when compared to earlier generations. One respondent delved deeper in his reflection to acknowledge the influence of global economic forces, namely the international financial institutions (IFIs). Dr. Sannu, who hails from Kano, in northern Nigeria, is 40 years old and currently practices occupational medicine and public health in Middle Tennessee. In early 2011, he became a US citizen. After completing medical school, he worked for seven years in Nigeria before migrating to the USA. He provided his insight about the roots of the disparities in health, wages, and medical resources as follows:

There is still a lot of patriotism. But the difference is, let's say you are a Nigerian doctor, you trained in the UK in the 70's and you stay over there, your salary is say 1000 pounds a month; and you come back to Nigeria and your salary would be 1000 Nairas a month, which is comparable, as the Naira and the Pound were almost equivalent at the time. So you had no reason for even wanting to stay abroad. The electricity was stable; in terms of technology advancements, the differences were not that marked; the medical standards that were prevailing in Europe were pretty much the same standards that we had in-country. But, what happened in the 80's? Things just went downhill. We went from 1 Naira to .75 pence to 150 Nairas to 1 pence. So, all of a sudden, the gentleman who decided to stay on in the US was earning a 100 times more than his colleagues in Nigeria. Suddenly, in terms of medical advancements, the Western countries continued to progress while we actually retrogressed. When I did my OBGYN internship in 1994, I was on call every three days. There wasn't a day when I didn't lose a patient due

to totally preventable causes, preeclampsia, eclampsia, or bleeding after pregnancy, or sepsis... completely preventable causes! The patient will come, she has a retained placenta; ...in fact it will get so bad in the operating theater that the patient had to provide their own anesthetic gas before surgery; so if they cannot afford those 20 dollars, for 20 dollars the woman who was in labor will die, and what can you do? ... I couldn't do anything because it was the entire system that was broken.

Sannu did not directly make mention of the controversial Structural Adjustment Plans (SAPs). Nonetheless, it is evident that his narration is an indictment of them. In a conversation with Mullan (2007), Paul Farmer, a leading advocate for global health equity, expressed a sentiment similar to Sannu's. Reflecting on the medical brain drain, he stated:

Many health professionals wouldn't leave if they had the tools they needed to do their jobs. I'm talking particularly about lab tests and drugs. These need to be available to patients based on need rather than on ability to pay. In many countries these goods and services used to be provided in public clinics. The whole point of the public health system was to make the fruits of modern medicine and public health available to the poor. That philosophy was sabotaged during the period of structural adjustment and is still being undermined today (p. 1065).

The Structural Adjustment Plans (SAPs) were a set of conditions for loans required from debt-stricken countries by the International Monetary Fund (IMF) and the World Bank at the outset of the Third World debt crisis in the 1980's (see, e.g., Adepoju, 2004; MacLean, Quadir, & Shaw, 1997). The measures included inter alia currency devaluation, privatization, deregulation, desubsidization, and fees for all public services hitherto free of charge, including primary education and health services. The human development consequences of the SAPs were deleterious and pervasive, and critics have contested their application on both political and moral grounds (see, e.g., Lewis, 2005). The SAPs were probably the most important catalyst that set the stage for a culture of skilled migration from SSA (see, e.g., Adepoju, 2004). Once medical migration began, it became self-sustaining over time owing to medical migrant networks, healthcare personnel shortages in the West, and the ensuing culture of medical migration (see, e.g., Hagopian et al., 2005).

Discussion

I pointed out at the outset that the present analysis is exploratory and does not claim to address all the questions raised by the three-dimensional model. In fact, even the full dissertation from which this short paper is inspired does not claim to do so. Nonetheless, the preliminary examination attempted herein sheds some light on the promise of eco-psychopolitical validity as

a valuable paradigm for migration research. The epistemic validity of the multilevel analysis attempted hereby can be evaluated against the following questions:

At the micro/individual level: Does the analysis explore the individual motives and underscore the agency of the émigré doctors in migration decision-making? Does it recognize the potential pressures exerted on the prospective migrant doctors by family members and significant others?

At the meso/organizational level: Does the analysis acknowledge the possible forms of resistance put forth by local governments in the country of emigration to check medical migration outflows or to fill the capacity gap created by the emigration of doctors? Does it examine how the health ministries of the affected countries are restructuring to respond to the crisis created by the ongoing emigration of scarce human resources for health?

At the macro/institutional level: Does the analysis recognize the historical influence of global economic dynamics at the onset of the medical brain drain from SSA?

Although not explored in extensive detail, the present examination has indeed addressed all the above questions, reflecting three main loci of intervention: the individual migrant and his/her social network, the political leadership in the home country, and the macro-international system. One notable limitation, however, is the failure to capture the perspectives of those who did not move. But this is less a limitation of the framework than a failing of the investigator. Plans are underway to interview the SSA-based colleagues/cohort members of the migrant doctors who participated in the research.

In sum, the freedom of agency that doctors “individually have is inescapably qualified and constrained by the social, political, and economic [and even physical-environmental] opportunities that are available to them” (Sen, 1999, p. xi-xii). A critical evaluation like the one suggested here must necessarily examine the growing transnational inequalities between source and destination countries, and thus identify the global economic processes and the forces of political oppression that structure these disparities and sustain the continuous emigration of medical doctors from SSA. However, the concept of transformation embedded in the temporal dimension of the framework echoes the idea that organizations, institutions, and other structural processes are not impervious to social change. Individuals can and do bring about systemic change over time. Therefore, the task of stopping and reversing medical migration flows requires the full participation of the principal agents: the émigré doctors. Important contributions with regard to development and migration policy were suggested by the participants, though they cannot be debated in this paper due to space constraints.

Conclusion

In a world of social and economic disparities, and in which the powers of race and place often determine who is at greater risk of experiencing the worst effects of structural violence and who is shielded from assaults, any movement of scarce resources away from those who need them the most ought to be viewed, fairly so, as a crime. However, when the resource under dispute is an informed, consenting, and capable adult human being who chooses to exercise his/her freedom to move, armed with the full knowledge that such a move may be deleterious to his/her native community, it becomes most important to closely examine not only the complex ecological context and political processes that structure the increasing disparities of risks and threats between people and communities, but also to closely explore the personal meaning that the migrant doctors assign to their expatriation. That is the challenge of medical migration research. The present paper has attempted to respond to that challenge by adapting a critical and transdisciplinary approach seldom used in migration research. The adapted three-dimensional framework illustrates current efforts in community studies to use analytical tools that reflect the complexity of social phenomena. The complexity of the model urges scholars to transcend the comfort zones of their disciplinary cleavages and borrow from the perspectives and insights of other disciplines in order to address some of the most pressing social and ethical issues of our time. The international migration of doctors from SSA to the West is undoubtedly one such issue.

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