OUR BODIES ARE OUR OWN: HIV/AIDS AND THE WILDLIFE CONSERVATION ESTABLISHMENT IN NORTHERN TANZANIA

by

JOHN P. REID-HRESKO

B.A., Colorado College 2000

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_____
Dr. Lori Hunter

_____
Dr. Mara Goldman

_____
Dr. Sanyu Mojola

_____
Dr. Jennifer Bair

_____
Dr. Emily Yeh

Date_____

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Our Bodies Are Our Own: HIV/AIDS and the Wildlife Conservation Establishment in Northern Tanzania

Thesis co-directed by Associate Professor Lori M. Hunter and Assistant Professor Mara Goldman

This dissertation examines the implications of the convergence of wildlife conservation and the HIV/AIDS epidemic for knowledge, practice, and policy within northern Tanzanian conservation organizations, spaces and the lives of conservation professionals. Utilizing political ecology and science and technology studies theoretical frameworks, coupled with aspects of feminist and post-structural thought, I demonstrate that articulations between HIV/AIDS and wildlife conservation are shaped by historical forces, international political economies, macro-structural forces, embodied localized knowledge and understandings, and discursive regimes of truth and resistances to them. To illuminate these complex webs of meaning and practice, I question (a) the profound ways in which historical trajectories shape the current epidemic, (b) how epidemiological drivers of HIV/AIDS are understood by conservation professionals, (c) the specific mechanisms through which actors perceive their professional and personal lives to be impacted by HIV/AIDS, and (d) what conservation organizations are doing to mitigate such impacts as well as how conservation professionals respond to organizationally sanctioned efforts.

Utilizing qualitative methods, primarily semi-structured individual interviews and ethnographic observation, I contend the answers to such questions are located in a series of tensions, ruptures, and frictions. Mediated by professional status and educational attainment, a

seemingly homogeneous group—wildlife conservation professionals in northern Tanzania—offer contradictory explanations of the forces driving the continued transmission of HIV. While several studies have addressed a multitude of materially based HIV/AIDS-related impacts to the conservation establishment, I elaborate a second important category of impact: those based in discursive understandings of risk. Lastly, some efforts of conservation organizations to reduce the continued transmission of the virus have been met with significant resistance from the very people they are intended to help. This work presents a valuable case study highlighting why HIV/AIDS matters for the protected areas and the people inside and around them and how utilizing the conservation establishment as a setting for such an investigation exposes certain contradictions in the ways conservation professionals understand their relationship to, knowledge of, responses to, and experiences of HIV/AIDS within the neoliberal wildlife conservation settings of northern Tanzania. Recognizing these ambiguities and frictions is useful for understanding and mitigating the epidemic.

This dissertation is thrice dedicated:
To the thoughtful men and women who are conservation and tourism professionals in northern Tanzania, without whom this work simply would not be, to a quest toward ameliorating the pain and suffering of those living with and dying from HIV/AIDS on the subcontinent, whose lived experiences make this project much more than an intellectual exercise, and to the women in my life, each of whom have made me the man I am today and who push me to be more tomorrow.

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read this, I hope I have lived up to your expectations and accurately reflected your lives, knowledges, and practice and that this project might help you, in some small way, to better understand the complexities of the social and physical worlds you navigate every day.

There were a handful of people who extended repeated kindnesses to me during my time in the field that went far beyond simply taking an hour out of their day to answer my pesky researcher questions. Rather, they helped me understand the complexities and contradictions of life in northern Tanzania in a way that I otherwise would not have had access to. Elibariki Simon Bajuta, Antipas Salvatory, Edward Mkonyi, and Nurse Ruthie invited me into their homes and opened up their lives for me to poke and prod, answered my silly questions which belied how poorly I understood the intricacies of social life in the area, and nourished me both intellectually and physically. I have often thought that a marker of great compassion is not the kindnesses you extend to those you love and care about, but those you extend to strangers. Following that rubric, these individuals are among the greatest I have ever known. Thank you.

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was asking would lead somewhere—which most often was just further down the rabbit hole, and enduring my odd eating habits and curious need for morning mate. We both took a leap of faith and I hope the end product reflects the synergy I feel we nurtured together. Without question, Pastory taught me more than any other single person during my time in Tanzania, from the ways in which people understood themselves, their relations to other people and the landscapes in which they found themselves, and mostly about what it means to live with integrity. I owe him a special debt of gratitude for the countless hours he sat sweating in front of a laptop in Moshi, excruciatingly slowly translating and transcribing interviews, sleeping in sub-par guest houses, wearing the same clothes, and indulging me with night after night spent in seedy bars and eateries, particularly since he does not drink alcohol. I owe him an additional special debt because about three quarters of the way through our time together, another much better remunerated research opportunity was offered to him and he declined, simply because we had a verbal agreement. I know very, very few people who would have displayed such integrity in that moment and I respect you more than you will ever know for that choice. I know I was unable to adequately repay for all of your kindnesses, hard work, and facilitation during our time in the field, but you have my word that I will. I would also like to thank his family in Endamaghay for opening up their lives and home to Chelsea and me on several occasions with countless cups of chai, delicious meals, and a place to put our tent, never mind that night when we were almost carried out to sea!

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and empathy, the (slight) messiness that pushes back against my rigidity, and for sharing so many wonderful adventures with me around the world. I am so glad you were willing to take a risk and buy that plane ticket. It paid dividends I never expected. Your presence in Tanzania was a constant source of inspiration and comfort and this project would not have been the success it was without both. Thank you for enduring countless nights alone in the dark accompanied only by the hum of mosquitoes, putting up with that godforsaken rooster, for all the time talking on the phone and Skype, and for making a life with me there. I know it must have been tough to watch me sit in front of the computer day after day, month after month, and be okay with not seeing anything tangible, other than my stress, frustration, and occasional elation. It was only because I wanted it to be right, to be done, and to be good when you finally see/read it. This is that time, so thank you for being okay not knowing exactly what was going on and finding a place of comfort in that ambiguity. Now, I hope you read it and that in doing so, find all of the time, energy, sadness, itchiness, and occasional frustration that a life in Tanzania entails worth it. In this moment of extreme uncertainty, I look back and recognize how truly blessed I am to have you in my life. You are an amazing and beautiful woman. I don't know exactly what the future holds, but if I hope for one thing, it is to fill the rest of my days with your laughter, light, and love.

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mbawa zake, “each bird flies with its own wings.” Yet, this first flight is not possible without the love, patience, and nourishment of others. So, to each of you and to those not named here, thank you.

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ABBREVIATIONS AND ACRONYMS

ABC – Abstain, Be Faithful, Use Condoms

AIDS – Acquired Immune Deficiency Syndrome

AMREF – African Medical and Research Foundation

ART – Antiretroviral Therapy

ARV – Antiretroviral drug

AWF – African Wildlife Foundation

CCM – Chama cha Mapinduzi (Nyerere's political party in Tanzania)

CD4 – Cluster of Differentiation 4

CSO – Civil Society Organization

FBO – Faith-based organization

FZS – Frankfurt Zoological Society

GRIDS – Gay-Related Immune Deficiency Syndrome

HIV – Human Immunodeficiency Virus

IFIs – International Financial Institutions

IUCN – International Union for Conservation of Nature

IMF – International Monetary Fund

KAP – Knowledge, Attitudes, Practice

KABP – Knowledge, Attitudes, Behavior, Practice

LOOCIP – Longido Community Integrated Program

LSE – Life Skills Education

MAP – Multi-Country AIDS Project

MWEKA – College of African Wildlife Management

NBS – National Bureau of Statistics

NCA – Ngorongoro Conservation Area

NCAA – Ngorongoro Conservation Area Authority

NCAP – Netherlands Climate Change Assistance Program

NGO – Non-governmental Organization

NP – National Park

PEPFAR – Presidential Emergency Plan for AIDS Relief

PLWHA – People Living with HIV/AIDS

PRSP – Poverty Reduction Strategy Paper

SAP – Structural Adjustment Program

SPFE – Society for the Preservation of the Fauna of the Empire

STS – Science and Technology Studies

TACAIDS – Tanzania Commission for AIDS

TANAPA – Tanzania National Parks Authority

TANU - Tanganyika African National Union

UKIMWI - *Upungufu wa Kinga Mwilini*, HIV/AIDS in Swahili

UNAIDS - Joint United Nations Programme on HIV/AIDS

USAID – United States Agency for International Development

VCT – Voluntary Counseling and Testing

WB – World Bank

WHO – World Health Organization

WWF – World Wildlife Fund

CHAPTER ONE

Preliminary Thoughts on Situating the Convergence of HIV and the Wildlife Conservation Establishment in Northern Tanzania

Foreword

As the early morning sun cast long sideways shadows through the Acacia branches and the lilac-breasted rollers' plaintive calls signaled a new day, I sat down with Julius,[1] a senior conservation professional in a major national park in Tanzania's northern safari circuit, to discuss whether or not he saw HIV/AIDS as an emerging threat to the long-term success of the area's conservation establishment.[2] Before I had a chance to ask the first question, Julius removed a small sheet of notes from the breast pocket of his ironed shirt and launched into a lengthy monologue. He began, grounding his observations in personal experience: "I have personally experienced that *UKIMWI* (HIV/AIDS in Swahili) is a real problem for us. You cannot run a national park without conservation staff, and HIV/AIDS is one of the factors that has a

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[1] All names in this dissertation are pseudonyms. Furthermore, due to the tightly knit nature of the conservation community in northern Tanzania, I only identify research participants using a tripartite division: senior or upper-level professionals, their junior or mid/low-level conservation actors, and safari industry driver-guides—men who work with safari tourism clients, but most of whom, like national park employees, have post-secondary wildlife training. I consistently indicate the age and gender of the respondents in the pages to come because both were meaningful social categories that shaped my interactions with and the responses of participants.

[2] By conservation establishment, I mean hegemonic mainstream conservation, which has, since its inception, emanated from Euroamerica. Therefore, following Brockington et al. (2008:9), I am referring to "a particular historical and institutional strain of western conservation, not because we believe that it represents the full diversity of people who call themselves conservationists, but because it dominates the field of conservation in terms of ideology, practice, and resources brought to bear in conservation interventions." When I refer to the conservation establishment, I am invoking a multi-scalar and heterogeneous, yet interconnected, constellation of organizations (governmental, non-governmental, community-based, and private), individual actors, processes, relations, ideologies, and objects of protection, which has its roots in notions of fortress conservation.

very big negative impact on the staff." He went on to detail the ways in which HIV positive staff members, even those on antiretroviral therapy (ARVs), "cannot live up to the professional requirements." In this conversation, during which he obliquely acknowledged the presence of HIV+ staff members, he spoke of several ways the epidemic has begun to shape personal and professional lives in the park. Julius also revealed the complexity of the HIV/AIDS impacts for his conservation organization: it is not just the materiality of the epidemic that is impacting both his professional and personal experiences; the culturally situated beliefs and practices of conservation professionals and members of adjacent communities also impact his experiences. In doing so, he provided a nuanced answer to the first of my central research questions: "Is HIV/AIDS impacting the northern Tanzanian conservation establishment, and if so, in what ways?" Though the question could have been answered in a variety of straightforward ways, his multi-faceted answer exposed one of the fundamental tensions central to this research: while there are clearly visible and demonstrable material impacts of HIV/AIDS, which affect life and work in the park and which the conservation establishment is working to mitigate, there are also less visible, yet equally important impacts based in the discursive constructs through which people interpret and understand the epidemic.

Knowing my time with him was limited, after roughly twenty minutes I was eager to shift the discussion from one about *how* HIV/AIDS is impacting the park to a discussion of *why* these impacts are occurring and thus focus on the second fundamental research question of this work: "How do conservation professionals understand and explain the factors driving the HIV/AIDS epidemic in Tanzania's northern safari circuit?" But Julius was one step ahead of me

and, without prompting, transitioned into a discussion of the personal deficits among his staff, which result in the continued transmission of the virus:

> One of the reasons why my staff do not protect themselves is that people are ignorant of sex education. Secondly, I think that people drink too much and then it's harder to protect yourself …. Some people just do not care about themselves. That is what I think. Because if people are aware that if they have unprotected sex, they can get diseases, then I cannot understand why you wouldn't just have a drink and then go home or take your beer and go home and drink it.

This response, which foregrounded individual choice, lack of education, and excessive drinking as the main drivers of the epidemic, invoked themes common among others at the very top of the conservation hierarchy with whom I spoke. Although he did not explicitly name them, he invoked standard tropes of the empowered, agentive, and rational neoliberal subjects, who make choices from a position of cost/benefit analyses and self-interest. Unfortunately for Julius and the efforts to mitigate HIV/AIDS in these environments, most Tanzanians do not conceptualize their identities in such individualistic terms.

Despite his initial assertion that individual-level drivers are propelling the epidemic in and around the park, as I began to ask probing questions, Julius acknowledged extra-personal forces were also fueling the epidemic, yet curiously always did so by referencing individuals. In response to my question "Since you have told me that you think HIV is a problem facing people in your park, where do you think your employees encounter HIV?" he responded, "I think that this is something that people encounter anywhere they go to socialize. The small towns near the park are very dangerous because out there is where most of the people from here go to relax and socialize. You will find that people go out to socialize and then sometimes they may even drink too much and then, as a result, they can't protect themselves." The social geographies of conservation in northern Tanzania combine long periods of isolation with

infrequent excursions to populated areas, where conservation professionals, overwhelmingly men, relax and socialize with their male counterparts. This relaxation largely revolves around the twin activities of drinking beer and eating *nyama choma* (meat cooked over an open fire), which takes place in small, open-air eateries. Since it is in these drinking and eating establishments that many men have their primary access to potential sexual partners, it makes a great deal of sense (social, not epidemiological) that men would make the choice to not take their beers and return to the social isolation of the national park. Julius also tied viral vulnerability to structural dynamics of mobility, political economy, and gendered inequalities by continuing,

> In the last few months, I have really noticed that I think you see new girls roaming around these places and I think they come from as far away as Arusha and other places, even Dar Es Salaam. I really do think that I see girls coming from outside to look for money and they know that this is the place where they should come. These women and girls are not stupid and they know that if they come here at the end of the month, they will find a lot of men from the park with money in their pockets because they earn a good salary. Everyone who lives around here knows that park employees earn a good salary and that you can get something from them. Very often these days you will see very beautiful girls walking around these areas, but they are dressed like someone who has just come from town, not someone who has come out of Maasailand.[3] I don't think it is a coincidence that you see these women out at the exact times of the month that people get paid and on Sundays when you know that people are out to socialize and drink with their friends.

Thus, in spite of his assertion that individual behaviors and a lack of education are at the root of the epidemic, he went on to address how political economy and structural forces are implicated in viral vulnerability, even if he consistently chose to situate those structural factors within a rubric of individualism. In doing so, he revealed the second fundamental tension central to this

[3] In the context of this dissertation, Maasailand has two important connotations: (1) it is a geographic region in northern Tanzania inhabited predominantly by ethnic Maasai pastoralists and (2) it is used as a metaphor to signal remoteness.

thesis: the disjuncture between perceived individual-level and structural epidemiological drivers. Let me be clear. I am not suggesting that individual behaviors are not fundamentally at the root of HIV transmission, because other than in cases of forced sex, or mother to child transmission, or perhaps a contaminated blood transfusion, it is indeed the actions of individuals that expose them to the risk of transmission. However, following a very long line of social scientists, I argue that such individual behavior and choice is shaped, constrained, and informed by structural forces, including political economy, history, and structural social and cultural inequalities. Vulnerability to HIV is best situated "at the intersection of a kaleidoscopic array of interlocking multi-level processes, ranging from the intra-psychological to the macro-social" (Campbell 2003:183). This dissertation foregrounds the macro-social end of this continuum.

Thus, in this thesis, I examine the convergence of HIV and wildlife conservation in northern Tanzanian conservation spaces by asking how HIV-related knowledge and understandings are embodied in both individual and organizational behavior and practice and what these intersections and fault lines mean for the progression of the epidemic. As a result, my final primary research questions explore the interrelated phenomena of (a) what conservation professionals know about HIV/AIDS, (b) how those understandings influence and motivate behavior, (c) what kinds of organizational responses are being implemented by the conservation establishment to try to impact such understandings and behaviors, and (d) how professional conservation actors respond to such organizational interventions. When I asked Julius what people working in the park knew about HIV/AIDS, he responded, "Everybody has been touched by this disease in one way or another, so I think that everybody here knows what

HIV/AIDS is." Thus, he introduces the final set of tensions central to the chapters to come: those related to organizational responses to the epidemic. In conservation organizations throughout the northern safari circuit, time, money, and energy are being spent on the perceived ongoing need to teach people that which they already know, often in ways that many are unlikely to respond to.

This disjuncture is further complicated by the primary instructional prevention paradigm in the area: the near globally ubiquitous ABC approach (abstinence, being faithful, and using condoms). Julius argued for the need for more education about the epidemic, which in Tanzania almost automatically means more ABC-based instruction, while at the same time literally laughing in response to my question about how realistic he thinks abstinence is as a prevention strategy. When I asked him how well he thought being faithful worked, Julius's response was that it is also problematic due to the social isolation of people living in the park and *ubinadamu,* "human nature". In contrast to casting doubt on the efficacy of these two prevention strategies, which importantly he did advocate should be taught as they can work for *some* people, he was very assertive about his support for condom use: "I mean, if you want to drink and have sex, just use a condom. It's that easy." This assertion, once again, points to yet another crucial contradiction in current prevention programs, which do not account for the structural constraints on condom use. However, he ignored these complicating factors and simply asserted that condom use was dependent on the availability of condoms in locations where accessing them is not public: "Condoms are everywhere. We distribute condoms everywhere we can think of, from the dispensary, to the bathrooms, to the secretary's office. It is very important that we put those condoms in places where people who are of a higher rank

cannot see people taking those condoms." Thus, he asserted that the main barriers to effectively mitigating the epidemic are a lack of knowledge and the availability of condoms in socially secure locations. Ironically, since he was just moments earlier earnestly describing the need for more education, which invariably means more ABC in these settings, his subsequent rejection of both abstinence and being faithful is significant and signals a widespread trend of resistance to the ABC regime. This discursive opposition to the ABC paradigm, which is the primary medium through which conservation practitioners are told to avoid infection, is the final HIV-related friction I will foreground in this thesis.

Thus, in this single interview, one senior park employee responded to each of my central research questions: (1) Is the HIV/AIDS epidemic impacting the area's conservation establishment and, if so, in what ways? (2) How do conservation professionals understand and explain the factors driving the HIV/AIDS epidemic in Tanzania's northern safari circuit? (3) What do conservation professionals know about HIV and how does those understandings shape sexual behavior? (4) What are conservation organizations doing to try and mitigate the epidemic and how are conservation professionals responding to such intervention efforts?

Upon my return to the United States and as I worked my way through early analyses of the data, I found myself working hard to stitch together a cohesive, uniform story that I could wrap my head around. But in each substantive area of the data, there were pieces of data that stubbornly did not seem to fit within the neat and tidy narrative I was working to construct. As my familiarity with the data increased and I delved more deeply into this tangled epidemiological web of signification, I came to see that the most interesting story was located precisely in the interstitial gaps between the story I was trying to tell and the data which did not

fit such a tidy picture. Thus, as this forward suggests, my primary goal in writing this dissertation is not to present a single unified, cohesive account of the risk environments within which HIV/AIDS intersects with the wildlife conservation establishment in northern Tanzania. While I could have constructed a narrative that flattened out differences and contradictions, such a story would not have been true to the insights and data compiled over my time in the field. More importantly, doing so would not have reflected my experiences in the field or the lingering questions and uncertainties with which I left the research sites. I argue in the pages to come that this dissertation presents a more nuanced narrative regarding the convergence of the epidemic and the conservation establishment by foregrounding a series of frictions, ruptures, and incommensurabilities. It is, as Setel (1999) asserts, a plague of paradoxes.

The first of these tensions regards the perceptions conservation and tourism professionals hold about the drivers of the epidemic and whether they are primarily individual oriented or are grounded in extra-personal structural dynamics. The second friction is the existence of both materially and discursively grounded impacts of HIV/AIDS within wildlife conservation settings in northern Tanzania.[4] The third fundamental paradox which Julius introduces is the discrepancy between the ABC-based prevention programs, championed by conservation organizations and the health and HIV/AIDS nongovernmental organizations

[4] I consider this a friction because, until now, the academic and conservation establishment-produced work addressing the impacts of the epidemic within protected areas has focused on the material impacts of the epidemic (e.g. Cash 2007, De Souza et al. 2008, DeMotts 2008, Dwasi 2002, Oglethorpe and Mauambeta 2008). Thus, an analytic gaze that broadens the scope of inquiry to include discursively produced, but materially consequential, impacts makes a meaningful contribution to the body of academic and conservation organization-based literature, which seeks to understand the myriad ways in which the epidemic is impacting conservation actors, organizations, processes, relations, and objects of protection.

(NGOs) which work with them, and the unexpected ways that conservation and tourism professionals respond to such messages.

The last issue, fundamental to this research, but not foreshadowed by my discussion with Julius, is the ways in which the current state of HIV/AIDS in Tanzania has been shaped by multiple historical currents, related to understandings of identity, the development of and access to health care services, and the emergence and development of the conservation establishment. All three trajectories share the important theme of consistent external influence as they traverse the historical periods in Tanzania of colonialism, the post-independence developmentalist state, and the transition to neoliberalism. Following Setel's germinal work on HIV/AIDS in the Kilimanjaro region of northern Tanzania, "The paradox of AIDS is that this *new* disease is enmeshed in *historically shaped* social environments" (1999:4 emphasis added).

This research matters precisely because of these central frictions: (a) vast sums of money are being poured into addressing the epidemic as if it does not have a history, one which in some ways dates all the way back to colonial periods, (b) divergent explanations of why HIV/AIDS is impacting the conservation establishment exist, yet primarily only those which center individual-level epidemiological drivers, are validated with a response, (c) conservation and health professionals, as well as academic researchers, are working hard to identify the epidemiological impacts to conservation, yet remain inattentive to the role of discourse in producing such impacts, and (d) the organizational responses championed by the conservation establishment largely miss the mark and are resisted, rejected, and reformulated by those whose behavior they are intended to impact. In the pages to come, I present a synchronic,

holistic interpretation of the convergence of HIV/AIDS and conservation, which privileges the ruptures, disjunctures, and frictions which are at the heart of this relationship.

Having now presented the central frames of the dissertation, I locate this project geographically and introduce the research sites where this work was carried out. I then situate the four fundamental tensions discussed above within several disparate existing bodies of literature: (a) the ways in which historical trends, political-economic formations, and shifts in governance have shaped the current epidemic, (b) the continued focus on risk, as embodied by individuals, (c) the primary structural factors which situate epidemiological vulnerability for the conservation establishment in the study area, (d) the various impacts of the epidemic, and (e) the complexity of organizational responses to the epidemic. After situating this work within existing knowledge frameworks, I justify why these sites, in particular, and conservation, more generally, are appropriate venues for this research and present an epidemiological profile which challenges existing understandings of declining seroprevalence in the area, arguing that national seroprevalence figures mask important geographic variation that appears to be tied to the conservation establishment. The introduction concludes with a short outline of the remaining chapters.[5]

[5] Each chapter employs a unique theoretical lens and draws on a different body of existing literature. Thus, rather than presenting an over-view of the theoretical frames and the various literatures which appear in each chapter throughout this dissertation here in the introduction, I simply briefly mention them in the chapter outlines and elaborate on them in the appropriate chapter.

Working in and around Tanzania's Northern Safari Circuit

Tanzania ranks among the countries with the greatest concentration of protected areas, with at least 27% of the national land held in some form of conservation trust (Goldman 2003). In the 2007/2008 fiscal year, the national parks of Tanzania attracted 736,829 visitors, generating roughly $45 million in revenue (TANAPA 2009). The crown jewel of this expansive network of protected areas, at least in terms of tourist traffic, accessibility, gate revenues, and mega-fauna concentration, is undoubtedly the northern safari circuit, located to the west of the gateway city of Arusha. The area is comprised of three national parks (NPs): Serengeti (14,763 km^2), Lake Manyara (329 km^2) and Tarangire (2,850 km^2) and includes one conservation area, Ngorongoro (8,292 km^2).[6] The participants in this research were primarily employees from three of these protected areas, the Ngorongoro Conservation Area (NCA) and Lake Manyara and Tarangire national parks.[7] In fiscal year 2007/08, Tarangire NP had 122,637 visitors and Lake Manyara saw 158, 019 visitors in the same year. While specific numbers are not available for the NCA, Charnley (2005) contends it is the most heavily visited protected area in the

[6] Because both Arusha and Kilimanjaro NP are located to the east of Arusha, I chose to not include them in this list though they are generally considered part of the northern Tanzanian tourist circuit, as both are heavily visited.

[7] Dynamics surrounding HIV/AIDS in the NCA are, in some ways, quite different than those in Lake Manyara and Tarangire because, unlike the national parks, the NCA has approximately 60,000 permanent residents, primarily Maasai pastoralists. This means that the social geographies of relaxation, which are located next to both national parks are also to be found within the confines of the NCA. Yet despite the important differences, I was struck by the degree to which respondents from both the national parks and the NCA echoed each other's sentiments.

country.[8] Furthermore, the area contains a number of game reserves, forest reserves, wildlife management areas, and at least one protected area held in private trust, the Manyara Ranch, located to the southeast of Lake Manyara between Lake Manyara and Tarangire national parks and operated by the African Wildlife Foundation (AWF, originally the African Wildlife Leadership Foundation).[9] All three of these official conservation spaces are located either directly next to or within a short distance of the main tarmac highway, which connects the area to the metropolitan city of Arusha, which has an estimated population of 350,000. The highway was built largely to facilitate increased numbers of visitors.

Although my research assistant and I conducted formal interviews in all three conservation areas, the majority of the work was done in the areas directly adjacent to these protected areas.[10] The vast majority of my research participants were either conservation professionals who worked inside protected areas or tourism driver-guides, who took tourism clients into such conservation spaces. In addition to their work inside the protected areas, they were also part of social networks which extended beyond these boundaries. The protected areas and towns in which this research was conducted, as well as an insert that situates the study site within the region, appear in Figure 1.

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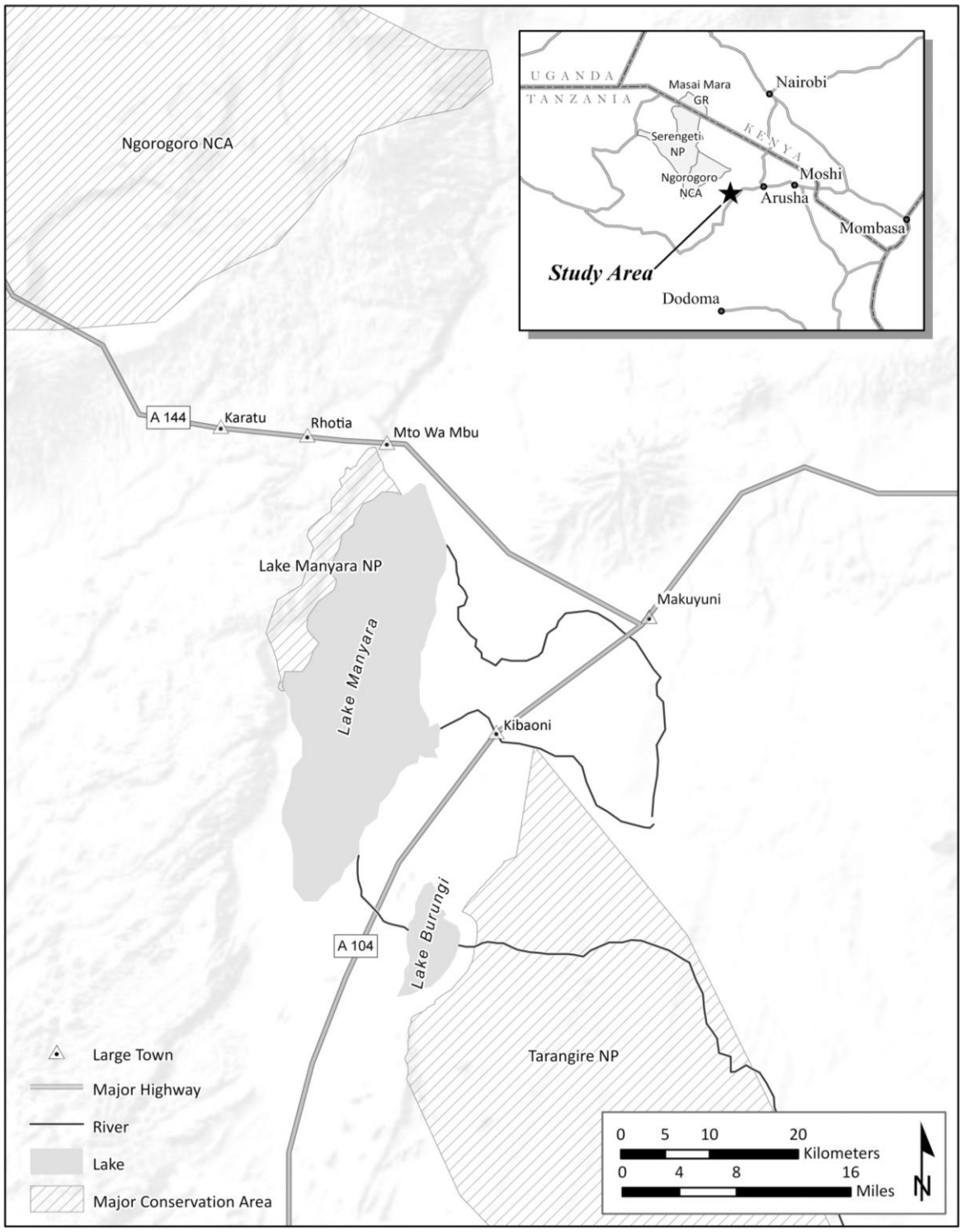
[8] While I was unable to secure exact statistics regarding tourist visits to the NCA, it is located between Karatu and the Serengeti NP, which means that the vast majority of those who visit the Serengeti necessarily pass through the NCA. In 07/08, the Serengeti had 290,688 visitors (TANAPA 2009). This does not account for those tourists who only visited the Ngorongoro Crater, without carrying on to the Serengeti or those who fly directly into Seronera, located inside the Serengeti national park.

[9] I also conducted three formal, recorded interviews and one unrecorded group interview with the management and employees of Manyara Ranch.

[10] The logistical constraints, which prompted us to carry out the majority of this research in areas directly adjacent to these protected areas, are discussed in detail in the subsequent Methods chapter.



Study Area Map. Originally prepared by Jennifer Perry, CU Boulder Geography Department Affiliate.
Modified by Evan Chute, Evan Chute Graphic Design, Ltd.

Source: Adapted from Goldman 2011

Figure 1: Map of the Study Area

The settlements in which these social-sexual networks circulate range from the small Makuyuni village, located at the tarmac junction that separates the highway to Tarangire NP from that to Lake Manyara NP and the NCA, and the even smaller Kibaoni village at the junction of the road into Tarangire NP and the highway to Babati, to the larger towns and trading centers of Mto Wa Mbu, located directly adjacent to Lake Manyara NP, and Karatu, located 15 miles from the gate of the NCA. Both Mto Wa Mbu and Karatu are home to several thousand people (see Figure 1).[11] The 13 km between Mto Wa Mbu and Karatu are also populated, other than the drive up the side of the Manyara Escarpment, and the small town of Rhotia lies between them. These towns are the site of conservation's social geographies of relaxation and, as such, are of fundamental importance to this discussion of the ways in which HIV/AIDS and wildlife conservation in the area intersect.

Interrogations of HIV/AIDS in Tanzania: A Review of Literatures

Because this dissertation draws on several varied bodies of existing literature, this section introduces each relevant body of knowledge and situates the project within those understandings. I address the importance of historical trajectories for the current epidemiological situation in Tanzania, the formulations of risk and behavior within which understandings of HIV have long been positioned, the voluminous understandings of the ways in which structural drivers shape HIV transmission, the impacts of HIV/AIDS both in large-scale Tanzanian organizations generally and more specifically within the conservation establishment,

[11] Although I could find no exact census data for either Mto Wa Mbu town or Karatu town, the wards (administrative districts) within which each town is located possess official populations of 15,984 and 17, 847, respectively (NBS 2006).

the Tanzanian government's transnationally mediated response to the epidemic, and finally a small body of literature which examines the most common frameworks for HIV prevention, ABC (Abstinence, Being faithful and Condom use) and Life Skills Education.

The Importance of History to HIV/AIDS in Tanzania

Foreshadowing the first substantive chapter of this dissertation, a handful of academics have convincingly asserted that historical dynamics and political-economic formations have affected the current Tanzanian HIV/AIDS epidemic in important ways. Indeed several have argued that following the path of one or two historical trajectories helps us to better understand current context-specific articulations of the epidemic. Barnett and Whiteside (2002) argue that dynamics related to the German and British colonial periods, including the introduction of cotton, coffee, the development of wage labor and cash-based markets, and the need for a continually exploitable workforce, all shape the current political economy of northern Tanzania, which in turn has profound impacts on the HIV/AIDS epidemic. Setel (1999) further asserts that the externally influenced development of the area, which began during and continued after colonial times, heavily impacted land-use patterns and livelihood strategies, promoting widespread migration, which has shaped the epidemic in northern Tanzania. Externally impacted land-use changes, which promote migration and thus contribute to the pandemic, are mirrored in the enclosure of, and eviction of peoples from, the areas which are now protected areas in northern Tanzania.

Other important historical factors for understanding the arrival of HIV/AIDS in Tanzania are the developments of the post-independence government and the war with Uganda

(O'Manique 2004, Rugalema 2004, Turshen 1999). A number of authors also argue that dynamics tied to neoliberal transitions and structural adjustment in Tanzania have shaped the epidemic and responses to it in profound ways (e.g. Booker 2009, Dilger 2006, Holt 2007, Kalipeni et al. 2004, Stambach 2000, Vavrus 2003). Not only are international processes and globalizing processes positioned as driving aspects of the pandemic, but Dilger and Higgins elaborate on the ways in which neoliberal imaginations of individuality and sexuality shape prevention messages (e.g. Dilger 2009a, Higgins 2010a,b). Furthermore, HIV/AIDS also has been discursively positioned, by Tanzanians and academic researchers alike, as a pandemic of globalization and a metaphor for disorder and moral breakdown (e.g. Dilger 2003, 2008, Mbilinyi and Kaihula 2000, Setel 1999). While all the authors presented here have addressed the importance of history for understanding the epidemic, none has suggested that there are distinct similarities among several historical trajectories, all of which intersect to shape the current state of HIV/AIDS in the country. Yet, this is exactly what I do in Chapter Three, where I explore the relevance of three historical patterns to the current project.

Risk and HIV/AIDS in Tanzania

This notion of HIV/AIDS as a symbol of disorder and immorality is closely tied to a long-standing body of work, which has centered notions of risk in relation to HIV/AIDS in Tanzania: risky people, risky behaviors, and risky environments (e.g. Bujra 2000a, de Walque 2006, Haram 2005, Lugalla et al. 2004, Lyons 2004). As the HIV/AIDS virus emerged on the world stage in the early to mid-1980s, the early response of the public policy, biomedical scientific, academic, and mainstream media communities set the stage, in some ways that continue to this day,

regarding how the epidemic, its impacts and drivers, and potential responses have been understood and conceptualized. The desire to isolate infected populations prompted efforts to identify and isolate the carriers of the strange new disease. In 1983, the Center for Disease Control offered its first assessment of the 'high-risk' groups fueling viral transmission, the 4Hs: homosexuals, heroin-users, hemophiliacs, and Haitians. This initial characterization identified risky individuals as the root causes of epidemiological transference. The discursive construction of high-risk bodies demonstrates the infiltration of existing representational systems regarding sexual orientation, represented by the syndrome's earliest moniker (GRIDS – Gay-Related Immunodeficiency Syndrome), and race and ethnicity (Farmer 1992, Waldby 1996).

Likewise, initial discussions of HIV/AIDS in Africa mobilized long existent Eurocentric racist discourses and representations of risky African hypersexuality, backwardness, cultural stereotypes, and ignorance drawing on popular Western representations such that "images of Africa conjured in Western minds … have been those of an oversimplified exotic place variously depicted as a game park or an apocalyptic vision of famine, [disease] and civil war" (Oppong and Kalipeni 2004:47). White Western scientists immediately tied the emergence of HIV/AIDS to non-white populations on the African continent and in Haiti and the African-Green-monkey-to-human-disease vector was theorized (Farmer 1992). This hypothesis, while never proven, remains persuasive for Western audiences because "the West's 'imaginings' of Africa include the notion that Africans live in close proximity with nature," despite the fact that the vast majority of African people have no direct contact with primates (Wertheimer 2007: 30). This manufactured discursive construction has resulted in what Farmer (1999) labels a "geography of blame" in which risky Africa and Africans are positioned as diseased, infectious, and

dangerous (Schoepf 2004). As Goldstein (2001:137) summarizes, "Evidence concerning AIDS in Africa has been constructed to fit pre-existing notions about African sexuality and disease …. Western research on AIDS had already defined AIDS as a behavioral problem associated with 'aberrant' lifestyles," and within Western ethnocentric frames, "exotic discursive conceptualizations of risky African bodies and behaviors fit into such a schema quite easily."

This stigmatizing framing of HIV/AIDS as an epidemiological issue which needed to define and isolate "high-risk" individuals with aberrant behavior was further solidified when the initial global response to the emerging epidemic, in 1986, approached HIV/AIDS by focusing on individual risk behaviors, such as how many partners one had, how often one used condoms, and with whom and how one had sex (Mann and Tarantola 1998).[12] This shifted the focus slightly, for it was now not so much individuals *per se* that were problematic and risky, but rather their risky individual behaviors. This characterization resulted in an explosion of social scientific and epidemiological research designed to determine exactly what kinds of individual behaviors exacerbated risk and resulted in the spread of the virus (e.g. Chouinard and Albert 1991, Cleland 1995, Cleland and Ferry 1995).

In this way, initial public policy statements about the epidemic came to define the academic research agenda regarding HIV/AIDS. However, as academic researchers worked to define such individual risky behaviors, such efforts precipitated additional questions about the social contexts in which such health vulnerabilities were situated. As a result, researchers began

[12] This initial characterization of the epidemic in individualistic frames has had profound, long-lasting impacts for how intervention and prevention strategies have been conceptualized, a subject addressed in Chapter Six.

to examine how context-specific structural, cultural, and political-economic dynamics shaped and constrained both individual behavior and group vulnerability, thus shifting the terms of the discourse from risky behaviors to risky environments, establishing "the extent to which a range of structural inequalities intersect and combine to shape the character of the HIV/AIDS epidemic everywhere …. It is in the spaces of poverty, racism, gender inequality, and sexual oppression that the HIV epidemic continues today" (Parker 2002:344). According to such logic, which is now supported by a significant body of research, to fully understand the dynamics at play behind the spread of the HIV/AIDS epidemic, we must be mindful of the "synergistic effects of social factors such as poverty and economic exploitation, gender[ed] power, sexual oppression, racism, and social exclusion" (Parker 2001:168-169). This understanding coincided with a shift in the public health paradigm from a focus on risk groups toward efforts to identify and intervene in risk environments that influence and are influenced by the structural factors which shape individual risk (Parker et al. 2000). Rhodes et al. (2005:1026) describe such risk environments as "the space[s], whether social or physical, in which a variety of factors exogenous to the individual interact to increase vulnerability to HIV … the HIV risk environment is a product of interplay in which social and structural factors intermingle but where political–economic factors may play a predominant role."

Just after the millennium, a growing consensus emerged, particularly among social scientists, that the structural dynamics of risk environments were a necessary component of any nuanced attempt to understand the HIV/AIDS epidemic. As this body of academic research grew, each of the central structural dynamics I explore in the course of this dissertation were identified and examined. Consequently, I now turn briefly to a review of the social scientific

investigations that established the centrality of the four structural drivers of the epidemic I examine in Chapter Four: economic development, relational economic inequality, gendered inequality and patriarchy, and social geographies of mobility and isolation.

Structural Drivers of HIV/AIDS in Tanzania

There is a significant body of social science literature that convincingly demonstrates a relationship between levels of economic development and the HIV/AIDS epidemic (e.g. Dixon et al. 2002, Farmer et al. 1996, Jacobsen and Van Dyke 2007, Piot et al. 2001, Piot et al. 2007). Collectively, this literature posits that HIV/AIDS is having deleterious effects for the long-term development and economic stability of sub-Saharan Africa. HIV/AIDS increases rates of poverty and thus negatively impacts development. However, there is an equally important opposite argument to be made: that development and economic growth actually impact, intensify, and shape risk environments. Echoing the sentiments of Setel (1999), Barnett and Whiteside (2002:137) write, "Tanzania is a risk environment where rapid change is associated with … 'development' …. Integration of the locality into a system of global relationships affected livelihoods, demography, and people's minds. The result was that people began to inhabit new niches of risk with increased susceptibility to infection." I use this analytic lens to examine the articulations of HIV/AIDS and the development which has accompanied the growth of the conservation and tourism establishment in northern Tanzania.

There is also overwhelming social-scientific agreement that poverty is inextricably linked to HIV/AIDS vulnerability (e.g. Farmer 1992, 1999, Gillespie et al. 2007a, Kalipeni et al. 2004). Farmer (1999:xxv) writes, "We know that risk of acquiring HIV does not depend on knowledge

of how the virus is transmitted, but rather on the *freedom* to make decisions. Poverty is the greatest limiting factor of freedom." Such a dynamic has been shown in Tanzania (Boesten 2009, Evans 2002, TACAIDS 2008). This assertion is valid, but primarily in a gendered way: the social forces of poverty have substantially shaped the vulnerability of women. Nombo (2007) argues that HIV/AIDS intersects with existing gendered inequalities and unequal access to resources to exacerbate the livelihood strategies of women, most especially poor women, prompting increased reliance on informal social capital. Poverty is a critical social fault line along which the epidemic has long mapped.

However, recent Tanzanian surveillance data and scholarship suggest a more complicated picture. Gillespie et al. (2007a,b) acknowledge the foundational importance of poverty on the ways in which the impacts of HIV/AIDS are experienced, but suggest that wealth may actually increase viral vulnerability disproportionate to poverty. Shelton et al. (2005) report on the 2003/04 Tanzanian prevalence survey, which reports that both employment and household wealth are strongly positively correlated with HIV prevalence. Furthermore, the subsequent 2007/08 Tanzanian national prevalence indicators suggest the continuation of this trend: wealth, not poverty, is positively correlated with HIV prevalence among both men and women. Women in the highest wealth quintile have a group prevalence rate (9.5%) nearly twice that of women in the lowest wealth quintile. While the contrast is not as stark, the pattern is similar with men (6.3% as compared to 4.1%) (TACAIDS 2008). Presently, men have a significantly higher prevalence in the Arusha region than women and wealthy individuals have higher seroprevalence indicators than their poor counterparts. Thus, it is fair to deduce that it is men of means who are most virally vulnerable in the Arusha region. Swidler and Watkins (2007)

help us to understand one reason why this may be the case by contextualizing this correlation between wealth and viral vulnerability within the normative social practices of patron-client relations, in which not sharing one's wealth through relations of dependency can result in moral judgment and social sanctions. Relevant for this research, conservation and tourism professionals are largely a relatively well-to-do class of men. Thus, there is reason to believe that the intersections of relative wealth and masculinity shape risk environments for conservation professionals in problematic ways. Privileging the validity of both academic currents and suggesting that the two are interrelated, in this dissertation, I contend that the dynamic to focus on is not absolute poverty, but rather relational material inequality.

Among both international organizations and academics, there is a broad consensus that patriarchal social structures and norms concerning hegemonic masculinity result in and reproduce forms of gender inequality, which facilitate the spread of the HIV/AIDS epidemic. The World Health Organization (2009), the Joint United Nations Programme on HIV/AIDS (UNAIDS 2010), and the World Bank (2004) have all released policy reports asserting that gender inequality and the resultant lack of negotiating power for women has fueled the transference of the virus around the world. Indeed, the consequences of patriarchy and unequal gendered negotiation power vis-à-vis HIV/AIDS have featured prominently in the Tanzanian literature (e.g. Baylies 2000, Bene and Merten 2008, Bujra 2000a,b, Coast 2002, Kalipeni et al. 2004, May 2003, Mlangwa 2009, Mojola 2011, Sa and Larsen 2008, Stambach 2000). Even the governing body for the nation's multi-sectoral HIV/AIDS response, TACAIDS (2008), writes that there are two main vectors through which gender and sexuality impact the epidemiological profile: "Men's irresponsible sexual behaviour due to cultural patterns of

virility," or normative masculinities and "social, economic, and political gender inequalities." A handful of HIV/AIDS scholars have productively demonstrated the many ways in which Tanzanian normative masculinities impact gendered epidemiological vulnerabilities (e.g. Setel 1996, Silberschmidt 2005). Accordingly, this research also centers gendered inequalities, patriarchal social structures, and normative masculinities, all of which are relevant to the dynamics of HIV/AIDS in northern Tanzania's conservation establishment.

The last group of epidemiological drivers foregrounded in this research is related to social geographies of mobility, isolation, and relaxation. The first of these, labor migration, a form of mobility, has been widely tied to the spread of the virus in Tanzania by many scholars, such as Barongo et al. (1992), Boesten (2009), Kalipeni et al. (2004), May (2003), May and McCabe (2003), TACAIDS (2008), and Van Donk (2006). All of these authors argue in one way or another that the movement of people in search of wage labor, particularly from rural to urban environments, has disrupted long-standing social relations and facilitated the movement of the virus. Overwhelmingly, the evidence suggests that people migrate from relatively low-risk rural environments to much higher risk urban environments, where they contract the virus, only to subsequently return to their rural homes, where they transmit the virus to unwitting rural partners. This trend is, however, shifting as the generalized epidemic comes to infiltrate even the most remote communities in Tanzania. While she still focuses on migration in search of work, that of young Maasai men in search of work as security guards, Coast (2006) inverts the standard narrative. She writes that young Maasai guards self-report not sleeping with women in urban environments precisely because they know that those places are risk environments for HIV. However, she is silent on the possibility of the reverse dynamic, that people in rural

environments are having sex with those who come from the cities (other than returning migrants), a dynamic implicated in the current state of HIV/AIDS in northern Tanzanian conservation spaces.

Lyons (2004), on the other hand, focuses on mobile populations, such as truck drivers, and the implications of their movement for the spatial distribution of the epidemic. This line of research suggests that highways come to function as the veins of viral transmission, with nodes of high seroprevalence in those areas where such drivers stop and subsequently engage in transactional sex. Indeed, Boesten (2009) asserts that in northern Tanzania higher HIV prevalence rates are found in roadside towns in the region of Kilimanjaro and that there are important interaction effects between poverty, gendered inequalities, and geographic positioning vis-à-vis major highways that disproportionately impact women in the area. Furthermore, she argues that mobility matters, not only for those actually moving and those interacting with them at roadside stops, but also because HIV/AIDS then tends to settle into the general population of areas located along transportation nodes. Due to the mobility of safari tourism professionals and the manner in which people converge at these nodal points, such as Karatu and Mto Wa Mbu where tour drivers stop, this literature informs the analyses to come.

The last relevant literature regarding social geographies and HIV/AIDS in Tanzania, which I build on, is a nascent one: the examination of social geographies of relaxation for viral transmission (Ezekiel et al. 2010, Mlangwa 2009, Yamanis 2009, Yamanis et al. 2010).[13] The

[13] Rather than focusing on bars or eateries, Yamanis and her colleagues examine another masculinized space, the 'camps' of Dar Es Salaam, which are informal squatter camps, not where people live, but where groups of young men congregate to relax, drink, swap stories, and demonstrate the strength of their normative masculinities.

authors cited argue that bars and eateries are social locations where groups of men congregate, normally without their wives or girlfriends. These spaces, however, are not devoid of women. Most notably, bar maids and commercial sex workers are often present. As a result, they are risky environments for transactional sex and thus potentially HIV transmission. Because such bars and eateries function as the primary venue for male conservation and tourism professionals' relaxation, and are therefore deeply implicated in the dynamics of HIV transmission in the area, I expand on this emerging body of literature in the chapters to come.

Despite the overwhelming empirical evidence that the structural factors addressed in the preceding pages are profoundly shaping the epidemic in northern Tanzania, the irony is that the majority of interventions in the area are still premised on the notion that it is a lack of knowledge, rather than a complex interaction of structural forces, which is propelling the epidemic. TACAIDS, the body tasked with coordinating the Tanzania's multi-sectoral response to the epidemic, continues to foreground, not risky environments and the extra-personal components, but risky behaviors and a lack of sufficient HIV/AIDS education as the central dynamics driving the epidemic. This reveals the tensions between the conceptualizations of risk and the work of social scientists to situate and contextualize such risks. Indeed, TACAIDS (2008) asserts that a variety of individual behaviors and practices are at the heart of viral transmission and constitute epidemiologically significant drivers of the epidemic: promiscuous sexual behavior, intergenerational sex, multiple concurrent partners, and a lack of knowledge.

Nationally, more than 99% of people surveyed were aware of the existence of HIV and AIDS (NBS 2011). The Arusha region statistics are close to the national average, with 96.5% of men and 94.4% of women in the region demonstrating surface knowledge of HIV/AIDS.

However, *comprehensive* HIV/AIDS knowledge is nowhere near 99%, with a national statistic of 44.8% for men and 40.0% for women and in the Arusha region 52.6% of men possessed a detailed understanding of HIV/AIDS, while only 40.1% of women did so (ibid.). In the context of this national survey, a detailed understanding of HIV/AIDS is defined as "knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chances of getting HIV, knowing that a healthy looking person can have HIV, and rejecting the two most common local misconceptions about HIV" (TACAIDS 2008:xvii).[14] These homogenizing statistics, which on the surface, suggest that HIV/AIDS is not particularly significantly impacting northern Tanzania, mask important variations in the region. Members of the conservation establishment, who form the majority of the research participants for this work, were universally aware of HIV/AIDS, its paths of transmission, and prevention strategies. However, this is not necessarily the case for all members of conservation professionals' sociosexual networks.

As a leading health NGO in the area wrote in a report detailing HIV/AIDS-related knowledge and interventions in communities located adjacent to protected areas, "the study illustrates an appalling picture of HIV/AIDS efforts and general progress to date. Communities remain extremely vulnerable to a host of individual, social, and structural factors. With the exception of a privileged few, they generally lack a comprehensive understanding of the disease. Misconceptions and false beliefs prevail" (Wright 2009). So, once again, to speak of the region as a whole, whether in regard to prevalence or HIV/AIDS knowledge, is inherently

[14] These two common misconceptions are that mosquitoes can transmit the virus and that a healthy looking person cannot have the virus.

problematic and masks significant internal variability, which are at the heart of my analysis. Situating such dynamics within a body of literature which facilitates a deeper understanding of the ways in which structural factors, not just health knowledge, shape risk environments, perception, and behaviors is the foundation upon which my analysis rests.

The Impacts of HIV/AIDS in Tanzania

In addition to the ways in which historical forces shape the present and the in-depth examinations of the structural drivers of the epidemic, the third major focus of this research is the myriad impacts of the HIV/AIDS epidemic within the northern Tanzania's conservation establishment. The large body of existent Tanzanian HIV/AIDS literature is relevant to this work in three ways. First, a number of authors, most notably Mlangwa (2009) and Bujra (2000a), have cogently suggested that the epidemic is reshaping understandings and expressions of masculinities, sexualities, and gendered identities. Both authors detail the ways in which normative masculinities are being challenged by women, which indeed signals a significant change in gender relations. Women, who customarily have had little ability to challenge or even question the decisions and behaviors of men, are now finding, through the epidemic, a space to do exactly that, though this pattern, as we shall see, was not one replicated among conservation professionals in northern Tanzania.

The analysis to come is notable for (a) the degree to which men self-reported resisting such changes and (b) the few female conservation professionals interviewed did not indicate challenging the patriarchal nature of gender relations, much the opposite in fact. Statistical information from the most recent national survey (NBS 2011) of sexual attitudes and practices

indicates that nationally 90% of both men and women report that it is acceptable for a woman to refuse sex and 80% of both men and women believe it is proper for a wife to insist on condom use with her husband. However, those numbers are not reflective of northern Tanzania, where the same indicators show that only 73% of women and 63% of men indicated the possibility of women refusing sex and only 65% of women and men reported that it would be okay for women to insist on condom use (TACAIDS 2008). These data thus illuminate geographical variation in sexual attitudes. Importantly, Mlangwa's (2009) research on the ways women push back against problematic masculinities is located in Dar Es Salaam. The participants were young urban professional couples, who in many other ways are also embracing non-traditional modes of interaction. Thus, in many instances, the extant literature is relevant to this research in that it acts as a counterpoint to continued patterns of masculine virility in the northern safari circuit.

Secondly, another small body of literature, tied to the previous one, suggests that the epidemic is fuelling shifts in sexual behavior change. For example, Lugalla et al. (2004) report significant sexual behavior shifts in the Kagera region, to the west of my research sites. These involve both individual behavior change and shifts in gender relations. These changes are the result of decreasing patterns of multiple, concurrent partnerships as men and women become more careful in the face of HIV/AIDS. Additionally, they assert that condom use is increasing, albeit slightly, and that stigma surrounding condom use is declining. Lastly, they contend that excessive drinking, long positioned as a powerful epidemiological catalyst, is in decline. Importantly, the authors attribute these changes not primarily to ABC behavioral change programs, but to the severity of the epidemic in Kagera and the ubiquity of personal experience

with the disease. These assertions of causality are supported by my work. When I did infrequently encounter someone who self-reported shifts in their sexual behavior, there were three primary explanations, none of which were the influence of ABC-based interventions: painful personal experiences with the epidemic, a loss of trust in potential sexual partners (also highlighted by Bujra 2000a), and increasing levels of religiosity.

Last, in addition to the conservation-focused literature discussed below, there are a handful of more general studies which demonstrate that the epidemic is having significant economic consequences in Tanzania, including within the tourism sector. Most of this work is very macro-focused on the entirety of sub-Saharan Africa. However, several specifically address the Tanzanian case (Bollinger et al. 1999, Forsythe 2002, Mfangavo 2005). Bollinger et al. (1999) assert that across sectors, large Tanzanian organizations are losing between 0.5% and 1.5% of their workforce each year to the epidemic. In a field requiring such costly training as conservation, and in which experience-based knowledge cannot be easily replaced, such loss is cause for alarm. Mfangavo suggests, following Bollinger et al., that a variety of economic sectors, including tourism, are being negatively impacted. Forsythe argues that the three industries in Tanzania most heavily affected are mining, transportation, and tourism and calls for USAID funding to further research the specific ways in which these industries are being impacted.

Impacts of HIV/AIDS within Conservation Settings

The small, but growing corpus of studies asserting that conservation establishments, both in Tanzania and in sub-Saharan Africa, more generally, are being significantly impacted by

the HIV/AIDS epidemic was foundational for the conceptualization and development of my research.[15] This short section positions my research in relation to the two major strands of such thinking: the first articulated by academic researchers and the second produced from within the conservation establishment itself.

A growing academic body of literature examines the ways HIV/AIDS impacts how people interact with and rely on their surrounding natural environments. As a consequence, a handful of academic investigations of the intersections of wildlife conservation and HIV/AIDS have been published recently (DeMotts 2008, De Souza et al. 2008, Torell et al. 2006). De Souza et al. (2008) examine the ways existing conservation organizations and infrastructures have been utilized to mainstream HIV/AIDS interventions in Malawi, Uganda, and Zimbabwe. Similarly, DeMotts (2008) addresses how Namibian community conservation organizations are mainstreaming HIV/AIDS and gender outreach, reducing stigma, and furthering important conversations within proximate communities. Torell et al. (2006) demonstrate the ways that increasing livelihood pressures—in part a result from the recent gazetting of a new national park, Saadani—and HIV/AIDS intersect to threaten both rural coastal livelihoods and marine biodiversity conservation along Tanzania's northern coast. Despite this nascent literature, significant gaps in our collective knowledge about (a) the multiple ways the epidemic is impacting the conservation establishment and (b) the beliefs about the epidemic held by conservation professionals. Additionally, although both De Souza et al. and DeMotts address

[15] This body of work is a small, emerging strain of a larger body of academic research which more broadly examines the implications of the HIV/AIDS epidemic for human/environment interactions (notably Frank and Unruh 2008, Hunter et al. 2007, Kaschula 2008, Loevinsohn and Gillespie 2003, McGarry and Shackleton 2009, L. Murphy 2008, Thaxton 2005, Torell et al. 2007).

conservation organizations in their respective works, both do so to look at how such organizations are being used to mainstream outreach, not at how such organizations themselves are responding to the epidemic inter-organizationally. These three knowledge gaps are all issues examined in this study.

The most comprehensive academic investigation of HIV/AIDS and the conservation establishment was a Master's thesis, written by Cash (2007), who conducted mixed-method research: survey work, including a Delphi approach to ranking HIV/AIDS impacts upon conservation organizations, and 23 semi-structured interviews in South Africa and Zambia. She identified three main substantive areas of impact vis-à-vis HIV/AIDS: technical resources, financial resources, and social and human resources. In this project, I examine conservation not as a conglomeration of resources, as Cash did, but rather as a constellation of organizations, actors, processes, relations, and objects of protection. This conceptual shift helps foreground the complexity of the interactions among a variety of multi-scalar actors within the conservation establishment. Several of the impacts teased out through this research are absent from Cash's analysis, something I believe can be attributed in part to the economistic conceptual understanding of conservation she utilized. That is, as a wide body of social scientific literature demonstrates, conservation is far more complex than a mere aggregate of three kinds of resources and privileging this complexity facilitates insights otherwise overlooked.

The second literature of interest, a body of grey literature produced from within the conservation industry, focuses on the implications of HIV/AIDS, primarily within national parks. In large part, it was exposure to this evidence during my exploratory/feasibility pilot study in

2008 that prompted the current project. Both the International Union for the Conservation of Nature (IUCN) and the World Wide Fund for Nature (WWF) funded a number of such studies, discussed below, in response to the realization that HIV/AIDS presents a major emergent threat to conservation. This body of literature is crisis driven and arose out of a need to address the concrete experiences of organizations that were perceived to be negatively impacted by HIV/AIDS. The hope was that such data would enable conservation organizations to better mitigate such impacts and experiences. As one African conservation professional dramatically asserted, "We must understand conservation is done by people …. Unfortunately, people doing conservation in Africa are dying due to HIV/AIDS. We have to deal with this if conservation is to survive" (Aldhous 2007:7).

In Tanzania, in a project partially funded by the IUCN, Tobey et al. (2005) argue that HIV/AIDS presently threatens both coastal biodiversity and the future success of Saadani National Park. The IUCN also partially funded a 2008 literature review by Mwakitwange and Bashemererwa which demonstrated that HIV/AIDS is impacting a number of human-environment interactions and that such interactions have consequences for and provide present opportunities to conservation organizations in the Mtwara and Lindi regions of southern Tanzania. Tellingly, they also tout the ways in which multi-scalar NGO collaborations, including TACAIDS, WWF, and ActionAid, are being used to raise awareness and reduce the epidemic's conservation and community-related impacts. Ngoti and Baldus (2004:4), of the German development organization *Deutsche Gesellschaft fur Technische Zusammenarbeit* (GTZ), write regarding these intersections in Tanzania that "there remains an acute gap in our understandings of how HIV/AIDS affects the environment and its management."

Much of the work designed to respond to this clarion call was orchestrated and supported by WWF's managing director of the People and Conservation Program, Judy Oglethorpe. In conjunction with Nancy Gelman, from the African Biodiversity Collaborative Group, Oglethorpe worked with conservation organizations and actors in South Africa, Malawi, Zambia, Kenya, Uganda, and Tanzania to compile preliminary findings regarding the impacts of HIV/AIDS in the conservation sector as early as 2002. Unlike Cash, who frames the issue in terms of economic resources, the literature produced by Oglethorpe and her colleagues largely centers on a trope of loss: the loss of personnel and human capital, the loss of experientially based knowledge, the loss of institutional memory, the loss of financial resources as conservation earmarked funds are shifted to address absenteeism, illness, and death (Dwasi 2002, Gelman 2007, Gelman et al. 2005, Mauambeta 2003, Oglethorpe and Gelman 2004, Oglethorpe and Mauambeta 2008). As Daulos Mauambeta, the Director of the Wildlife and Environmental Society of Malawi, asserted, "the impacts of HIV/AIDS on conservation and natural resource use cannot be over emphasized, especially in Sub-Saharan Africa, where the pandemic has reached critical proportions" (Aldhous 2007:6). In response to this body of literature, the IUCN (quoted in Gelman et al. 2005:18) adopted a resolution identifying HIV/AIDS as one of the pre-eminent threats to conservation projects and organizations, stating, "HIV/AIDS is a pandemic which is seriously affecting conservation success … [and] is reducing the biodiversity management capacities of conservation organizations." Much like with Cash's (2007) foregrounding of a variety of conservation resources, there is nothing wrong with this body of literature's focus on the profound losses conservation has suffered as a result of the HIV/AIDS epidemic. However, how we frame questions and what kinds of systems of

categorization and metaphors researchers employ impacts the findings we report. By examining the conservation establishment as a constellation of multi-scalar organizations, actors, processes, relations, and objects of protection, I attempt to explore the impacts HIV/AIDS has had on various elements of the establishment in a more holistic manner.

For instance, despite the importance of tourism to the conservation enterprise in Tanzania, none of the literature cited above includes the tourist industry in its assessment of the impacts of HIV/AIDS upon conservation. Brockington et al. (2008) recently asserted that, particularly in Sub-Saharan Africa, wildlife tourism is so profoundly intertwined with conservation efforts that speaking of one necessitates a discussion of the other. Even a short stay in the area which comprises the northern safari circuit demonstrates the centrality of the tourism industry to the ongoing relevance of conservation: they are, indeed, two sides of the same coin. As then Director of Tanzanian National Parks, David Babu, asked in 1992, "What is the future of wildlife in Tanzania without tourism?" (quoted in Bonner 1993:194). In Tanzania, tourism is a fundamentally integral part of the conservation establishment due the significant revenue it produces and the degree to which this revenue is used to fund parks' operational expenses. Yet, neither Cash's thesis nor the literature produced from within the conservation establishment accounts for the impacts of HIV/AIDS upon this very important facet of conservation. By choosing to cast a wider net vis-à-vis what constitutes conservation, this analysis does just that.

Governmental and Organizational Responses to HIV/AIDS in Tanzania

The final literature within which this dissertation is situated highlights various aspects of the responses to the epidemic by government and organizations. I will briefly highlight four relevant areas. First, I briefly elucidate the Tanzanian national governmental response. Second, I illustrate the ways in which this response articulates with and is shaped by non-governmental organizations (NGO) and international funding agencies and highlight how mostly international NGOs exert powerful influences and intersect with community-based (CBO) and faith-based organizations (FBO). Third, I examine the organizational response of the Tanzanian National Parks Authority (TANAPA). Finally, I review the research on the mainstreaming of ABC prevention techniques in the country.[16]

In 1985, two years after the first case of HIV/AIDS in Tanzania was reported in the Kagera region, the national government responded with the establishment of the National AIDS Control Programme (NACP), which was administered through the Ministry of Health. The primary focus of the early national response centered on epidemiological surveillance and increasing levels of knowledge regarding transmission vectors and prevention techniques. NCAP established three Medium Term Plans (1987-1991, 1992-1997, 1998-2000) to mainstream prevention, monitor the progression of the epidemic, and care for people living with HIV/AIDS (PLWHA) (Mfangavo 2005). To achieve these goals, the government went about creating a nested hierarchy of various agencies, from the nationally focused NCAP all the way

[16] In addition to these diverse areas of various organizational responses to HIV/AIDS in Tanzania, there is another important body of literature which examines the responses of everyday people, PLWHA, and cultural formations to the epidemic (e.g. Beckman and Bujra 2010, Boesten 2009, Coast 2002, Dilger 2001, Mkanta 2007, Setel 1999). However, this area of study was not the focus of this research.

down to district- and ward-level HIV/AIDS offices tasked with implementing policies and procedures on the ground (ibid.). However, the national government's ability to respond to the epidemic effectively was seriously impacted by (a) structural adjustment policies which required significant reductions in social service spending (O'Manique 2004) and (b) the increasing fragmentation of health care services which accompanied neoliberal policies over the past 25 years (Hardon and Dilger 2011). The government's capacity to respond, largely dismantled by policies imposed by the international financial institutions (IFIs), notably the World Bank (WB) and International Monetary Fund (IMF), was thus augmented at an early stage by a variety of NGOs. Ironically, these IFIs and their affiliates, which catalyzed the defunding of the governmental health apparatus, were the same institutions funding the majority of the Tanzanian response to the epidemic, thus giving them inordinate influence on the shape of that response. Today, 85% of the country's total HIV/AIDS budget comes from external sources (UNAIDS 2009). Indeed, the establishment of TACAIDS in 2002 was externally mandated if Tanzania desired to maintain external funding streams, in this case the World Bank's Multi-Country HIV/AIDS Program (MAP). After the IFIs' decision to change course and require each participating country to focus attention on a multi-sectoral response, TACAIDS instituted two National Multi-Sectoral Frameworks (2003-2007 and 2008-2012). If this national response, driven in no small part by external influences, sounds complex and convoluted, it is. What's more, national HIV/AIDS policies are first written in English to satisfy the demands of external organizations, meaning issues of translation add to the confusion (Mfangavo 2005). Writing such policies in English is important because although English is the dominant language of transnational HIV/AIDS interventions, Swahili is the national language of Tanzania and most

Tanzanians do not speak English. The fundamentally transnational nature of the response to HIV/AIDS is demonstrated herein. Since Tanzania is part of MAP, official documents are written in English and *then* translated into Swahili.

In 2003, the World Health Organization (WHO), in conjunction with the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), capitalized on the increasing availability of antiretroviral technologies to promote the widespread distribution of antiretroviral therapy (ART) in Tanzania as part of their 3x5 plan (to provide ART to 3 million people by 2005). Of the 1.4 million HIV positive people currently living in Tanzania, half of whom qualify for ART, the Global Fund to Fight AIDS, Tuberculosis, and Malaria (hereafter Global Fund) (2011) reports that 250,000 are presently on ART. This paradigmatic shift of transnational energies from prevention to treatment was compelled by the realization that the focus on prevention programs had failed to halt the spread of the virus: approximately 100,000 Tanzanians were infected with the virus in 2009. That amounts to 274 new infections per day (UNAIDS 2010).[17] The collective Tanzanian effort to combat the disease has had some success, most notably a slight seroprevalence reduction and near universal awareness of the existence of HIV/AIDS. However, a dysfunctionality exists that is more a product of external influence than internal mismanagement (Sullivan 2011). The IFIs and international funding agencies, primarily USAID

[17] While the rise of ART in Tanzania is an important part of the story of the response to HIV/AIDS in the country, it was not one which conservation professionals regularly addressed. All of the conservation organizations involved in this research declined to share ARV implementation statistics, no one disclosed the use of ARVs to me during interviews, and in general respondents did not pay much attention to it in their discussions of the impacts or responses to the epidemic. For that reason, while I acknowledge its centrality, ARVs do not form a substantial part of the discussions to come.

and the Global Fund, played a formative role in establishing national HIV/AIDS governance regimes, a quintessentially transnationally driven manifestation of development (Dilger 2009b).

The neoliberally imposed constrictions on public spending have exacerbated existing health care sector shortages. Indicative of this crisis is the fact that Tanzania presently has one of the world's most imbalanced physician- and nurse-to-patient ratios in the world: 0.02 physicians and 0.37 nurses per 1,000 people (WHO 2006). Although NGOs have been providing health care services in the country since colonial times, the co-occurrence of structural adjustment and the appearance of HIV in the country fueled a massive growth in extra-governmental health service provision, primarily in the realm of international NGO partnerships (e.g. Higgins 2010a, Holt 2007, O'Manique 2004) and FBOs (Booker 2009, Dilger 2009a, Siplon 2005). Furthermore, it has brought the NGO HIV/AIDS intervention efforts to the forefront of the national response (Sullivan 2011). Indeed, at present, many of the best funded and most influential organizations working against the HIV/AIDS epidemic in Tanzania are internationally affiliated NGOs and FBOs, including CARE International, the African Medical and Research Foundation (AMREF), ActionAid, World Vision, Marie Stopes, and Help Age.

This complicated and often confusing multi-sectoral response to the epidemic in Tanzania reveals the central claim of this dissertation, which is that there are a number of fundamental contradictions, tensions, and fractures at the center of the HIV/AIDS epidemic in Tanzania today. As Hardon and Dilger (2011) point out, this amalgamation of national, NGO, CBO, and FBO responses illuminates the frictions, negotiations, and ambiguities of the implementation of transnational processes and influences in local settings. This is a theme I shall return to in each of the substantive chapters to come.

The final HIV/AIDS response literature relevant to my work is a small body of academic research that examines the most commonly implemented HIV/AIDS prevention and education programs in Tanzania: the ABC-based prevention strategies and the Life Skills Education curriculum (Booker 2009, Dilger in press, Higgins 2010a,b). Although some disagreement remains about the exact origins of the ABC, with many assuming it originated in Uganda (the country in Africa where it was first mainstreamed and where many argue it has been the most successful), prominent HIV/AIDS officials in Uganda assert that the program was developed by the WHO (Hardee et al . 2008). The Life Skills Education program, also developed by the WHO, purports to foster critical health literacies by teaching people, "the abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life" (WHO 1998 cited in Higgins 2010b:68). The LSE framework does so by teaching people self-awareness, relationship skills, communication skills, decision-making skills, self-control, stress management, and creative and critical thinking that people are then supposed to rationally apply to their own lives in ways which reduce HIV vulnerability. Both of these approaches are fundamentally predicated on Western, neoliberal conceptualizations of individuality, autonomy, and rational behavior choice. This perspective asserts that risky sexual behaviors are largely the result of knowledge inadequacies and that correcting that perceived knowledge deficit will result in safer sexual choices (Lyons 2004, Rugalema 2004). Following Higgins (2010a), this dissertation pushes back forcefully against these notions, arguing that such a reductive perspective ignores the realities, inequalities, understandings, and complexities of the lives, identities, and understandings of most Tanzanians. Presently, both TANAPA, the management agency for all national parks, and one of the NGOs that the AWF, the largest

conservation NGO in northern Tanzania, contracted to conduct training programs inside northern Tanzanian conservation spaces continue to rely on these frameworks. ABC is, quite simply, the hegemonic HIV prevention strategy taught in northern Tanzania. Given the profound disconnect between the ideologies underpinning the most prevalent prevention strategies being implemented in the country and the lived experiences and understandings of most Tanzanians, it is little wonder that such programs are largely ineffectual at promoting the intended behavior change. The reliance on externally generated prevention frameworks and the manners in which they do not mesh with the identities, experiences, and understandings of conservation professionals exposes the final fundamental tension which this dissertation investigates.

Patterns of HIV/AIDS in Northern Tanzania

What does the HIV/AIDS epidemic look like in northern Tanzania? The statistics presented in this section come from the recent 2*010 Demographic and Health Survey*, published in 2011 by the Tanzanian National Bureau of Statistics and ICF Macro, the 2007-08 Tanzania Commission for AIDS' (TACAIDS) *Tanzania HIV/AIDS and Malaria Indicator Survey*, and data collected by district health officials and health NGOs conducting local HIV testing and surveillance, which they were willing to share with repeated assurances of strict personal and organizational confidentiality.[18] I argue that the low levels of reported prevalence in the area

[18] It is important to cautiously approach such statistics due to the problems associated with voluntary testing, the fact that such statistics are based nearly exclusively on people who utilize formal medical services in established health care facilities, the low likelihood of persons who believe themselves to potentially be infected choosing to test in areas with high social stigma, and the regularly asserted

mask important potential variability, which can be linked to proximity to the main highway and conservation areas. As such, the generally accepted view that seroprevalence in the region is quite low and in decline is, I believe, worthy of skepticism.

Tanzania's HIV/AIDS epidemic first appeared in the Kagera region in 1983 and within four years had spread across the country. By 1995, at the height of the epidemic's explosive growth in Tanzania, the overstretched and contracted public health sector was overwhelmed by what was at the time the largest seropositive population in the world (O'Manique 2004). UNAIDS (2010) estimates that there are presently 1.2–1.4 million HIV positive people in Tanzania, which means in absolute terms, it is among the countries in the world with the highest number of people living with HIV/AIDS (PLWHA). While HIV incidence rates, the rate of new infections, is believed to be decreasing, Tanzania remains in the midst of a generalized, overwhelmingly heterosexually transmitted epidemic, compounded by, among other things, high levels of poverty, gendered inequalities, and an overburdened health care apparatus.

In 2007/08, the latest year for which prevalence data are available, national prevalence was 5.7%, 4.6% for men and 6.6% for women, a slight downward trend from 2003/04, when reported nationwide prevalence was 7.0%, 6.3% for men and 7.7% for women (TACAIDS 2008). Both the findings of this research and the work of others suggests that these reductions in overall prevalence are due less to the impacts of HIV/AIDS prevention education programs in

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fatalistic belief that people are going to die anyway. So while it may be wise to not wholly rely on such statistics, they do provide a general backdrop against which to approach a qualitative examination of HIV/AIDS in the northern safari circuit of the Arusha region. Also, while many have argued such statistics are inherently problematic, they offer our only potential quantitative insight into epidemiological patterns in the region and are considered the international gold standard by international AIDS organizations, such as, the World Health Organization, and the Global Fund to Fight AIDS, Tuberculosis, and Malaria.

the country than to direct, catastrophic personal experience with the epidemic and increased levels of religiosity (e.g. Lugalla et al. 2004, Setel 1996). However, recorded prevalence of the Arusha region in 2007/08 was 1.6% overall, with 0.8% prevalence for women and 2.7% for men.[19] Interestingly, in a patriarchal country where women consistently have higher prevalence rates than men, the trend is reversed in northern Tanzania, a dynamic potentially directly related to the political economy of conservation. Additionally, Tanzanian prevalence rates have been positively correlated with population density (Van Donk 2006) and the Arusha region, with the exception of the city itself, is not a particularly population dense area compared to, for instance, Dar Es Salaam, which has a significantly higher prevalence rate. Indeed, according to an article published in February 2011 by the *Arusha Times*, Arusha city reported the highest recorded number of HIV positive individuals among those who tested in the region in 2010 and the absolute numbers of seropositive individuals in the city (and in the region) increased by more than 4,000 compared to 2009. The same article attributes to the Regional Medical Officer a claim that despite national and regional indications of declining seropositivity, absolute numbers of seropositive individuals have been steadily increasing in Arusha every year since 2005. Those with the highest prevalence rates in northern Tanzania are men 35-39 year old and women 30-34 years old, which is an age demographically well represented within the conservation establishment. Importantly, national data suggest that employment and wealth increase prevalence, as do mobility and familial estrangement, all of which are dynamics central to conservation enterprises in the area.

[19] This research does not provide prevalence figures for conservation organizations in northern Tanzania as neither TANAPA nor the NCAA were willing to divulge such information.

To further explore the dynamics of the epidemic in the area, we conducted interviews and informal discussions with local health and HIV/AIDS NGO officials. Local testing campaigns rely almost entirely on voluntary counseling and testing campaigns, as opposed to the national level random seroprevalence data presented above, and are thus open to significant criticism due to a number of possible confounding effects. These effects include the potential overrepresentation of seropositivity, as it is plausible many of those who voluntarily come to test may in fact have reason to suspect their own seropositivity, disincentives to engage VCT such as concerns surrounding confidentiality, the religious affiliations of many VCT providers, and the inability to access such services in particularly remote parts of the northern safari circuit. Thus, rather than relying on VCT testing data in this section, I present the voices of a handful of health and HIV/AIDS professionals who have been working in the area for extended periods. Every single such health professional with whom I spoke had reason to doubt the very low seroprevalence numbers for the Arusha region in the more populated centers between Arusha city and the protected areas of the northern safari circuit. For instance, an expatriate American health NGO worker, who had been working in the area for many years, asserted, "As people come to Karatu in search of livelihoods, we are seeing a dramatic rise in more urban [Karatu] HIV prevalence over the very rural environments they left." Thus, while the Arusha region's prevalence is quite low, 1.6%, and Karatu district's overall prevalence rates are also well below the national average, between 2% and 3% according to district health officials, local government HIV/AIDS officials consistently indicated that there are significantly higher rates in Karatu town and in areas adjacent to the main highway than in the very rural areas, which constitute the majority of the Arusha region. Speaking under conditions of anonymity, a senior

district health officer indicated that "in this district, we have found that the highest levels of HIV/AIDS are found along the highway from Arusha to Karatu."So, although the regional rate is very low in relation to the national prevalence, there appear to be epidemiological nodes of infections located along the main transportation route to the famous national parks of the northern safari circuit. This research finding is supported by and corroborates previous research on HIV/AIDS, mobility and migration in nonconservation-related settings in Tanzania (e.g. Lyons 2004, May 2003, Van Donk 2006).

Why Study HIV/AIDS in Northern Tanzanian Conservation Spaces?

The conservation establishment in northern Tanzania is an especially appropriate site for an examination of the convergence of the HIV/AIDS epidemic and conservation spaces, policies and practices. As L. Hunter et al. (2008: 107) correctly assert, "Little academic research has been done thus far on AIDS and conservation linkages." This research contributes to filling that knowledge gap by examining the intersections of disease, political economy, environmental governance, and sociocultural practices of intimacy.[20] Furthermore, a handful of scholars have paid significant attention to the ways in which the epidemic is impacting large nonconservation-related governmental and private organizations, the attitudes and behaviors regarding HIV/AIDS held by organizational members, and the organizational responses to the epidemic. This body of work has notably centered on the militaries of various African nations (e.g. Bing et al. 2008, Elbe 2002, Larsen et al. 2004, Sagala 2006, Whiteside et al. 2006) and the

[20] A similar provocation to study these intersections was issued by Mascia et al., in 2003 in the journal, *Conservation Biology.*

private mining sector (C. Campbell 1999, 2000, 2003, 2004, Cronje and Chenga 2007, Matangi 2006, Meekers 2000). However, there is no equivalent work addressing the conservation establishment, despite the shared interorganizational dynamics of these disparate enterprises. This research represents the first exhaustive examination of the intersections of HIV/AIDS and conservation and, at least within the constraints of case study research, facilitates a very general comparison of the ways in which the epidemic similarly and differentially impacts large organizations. However, the conservation sector differs from the military and mining operations in at least two important ways: (1) the ubiquity of post-secondary education in the conservation establishment and (2) the level of remuneration conservation professionals receive, making an exploration which enables examining these (dis)similarities even more compelling.

A large body of current literature persuasively argues that our science must move beyond the epidemiological and behavioral when examining the structural drivers of and organizational responses to the epidemic in organizational settings (see C. Campbell 2003 and Whiteside 2005 for two exemplary works). As scholars work to understand the concrete manifestations of this complex interplay of multiple structural drivers, new research settings (including conservation) offer the potential to further elaborate these dynamics. Examining the HIV/AIDS-conservation nexus enabled me to examine interactions among extra-personal forces such as the relative income inequality which results from a minority of actors receiving significant financial compensation in environments of rural poverty, social geographies of isolation and mobility, gendered inequalities, and cultures of risk. Thus, studying the perceptions of northern Tanzanian conservation professionals regarding the drivers and impacts of the epidemic and the formal organizational responses illuminated how the

interactions of these structural drivers shape the personal and professional lives of individuals. Equally important, this work demonstrates the ways in which conservation-related dynamics are shaping the disparate viral vulnerabilities of those who have dedicated their lives to safeguarding northern Tanzania's landscapes, flora, and fauna.

Additionally, political ecologists have persuasively examined the social, political, and economic dimensions and implications of environmental governance in protected areas in Tanzania (e.g. Brockington 2002, Goldman 2003, 2007, 2009, 2011, Igoe 2004, Neumann 1995a,b, 1998, Sachedina 2008, Walley 2004). This project builds on and adds to this insightful body of literature asserting that the political economy and social formations of environmental governance both influence and are influenced by HIV/AIDS. As the authors I cite above have presciently shown, even though we may often think of conservation as nationally bounded spatial phenomena (a perception reinforced by the moniker national parks), conservation is deeply involved in thoroughly transnational governance regimes, from the foreign governments and aid bodies which, in part, fund it to the international NGOs deeply implicated in the day–to-day decisions and operations of some protected areas, such as Manyara Ranch. King (2010) extends this argument to the domain of health, arguing that the political ecology framework has, thus far, largely been silent on health-related issues and using such a perspective can help us to enrich our understandings of the complex ways in which disease both transforms and is transformed by social and environmental systems. Likewise, numerous AIDS scholars have demonstrated the thoroughly transnational dimensions of the HIV/AIDS epidemic and the profound impact of international NGOs in shaping discourse and practice (i.e. Barnett and Whiteside 2002, Batsell 2005, O'Manique 2004, Patterson 2005). Because conservation NGOs,

such as AWF are now receiving international aid money to fund HIV/AIDS prevention trainings and outreach programs, examining the HIV/AIDS conservation nexus provides a fruitful opportunity to explore the profoundly transnational influences of spatially grounded intersections of disease, environmental governance, and social structure upon lived experience, understandings, and behaviors. Additionally, within transnational, national, and local spaces, both HIV/AIDS and wildlife conservation are discursively produced around issues of urgency, which help to facilitate the flow of funds earmarked for these particular interventions. As a result, we see that the organizational responses to the disease pursued by conservation organizations and NGOs bear the strong imprint of distant forces. The money to facilitate such interventions is overwhelmingly transnational and points to the rapid growth of a new kind of conservation and health NGO program which addresses the epidemic within protected spaces and organizations, which merits attention. These research settings facilitated an examination of an emergent manifestation of these coalescing forces. Furthermore, the sites selected for this research are at the geographic epicenter of NGO influence in Tanzania, outside of Dar Es Salaam. Thus, they represent the most appropriate sites to examine new transnational articulations of NGO involvement in conservation, those related to HIV/AIDS.

Last, L. Hunter et al. (2008:106) call for works that occur in "broader institutional and policy contexts," and for further research, "building bridges between communities of scholars, decision-makers and those developing and implementing interventions." From the outset of this project, my research was designed and implemented so as to be of use to those conservation professionals and organizations which were gracious enough to share their time, understandings, and experiences with me. Indeed, HIV/AIDS is an emergent threat to

conservation, and this research can help inform more thoughtful and potentially effective organizational responses, particularly in light of the less-than-optimal results current programs are achieving. Indeed, wildlife conservation–specific HIV/AIDS curricula collaboratively developed as a separate component of this project are being used at one of the premier wildlife training institutions on the continent (the Southern African Wildlife College), and officials at Kruger National Park in South Africa, one of the largest parks on the continent, are paying close attention to these findings as they re-evaluate their organizational HIV/AIDS response.[21] Only through knowledge and evaluation might these obstacles be more effectively mitigated by building connections between researchers and policy makers.

Chapter Outline

Having introduced the main themes of this dissertation and situated my work in relation to a number of important existing bodies of literature, I conclude this introduction by briefly outlining the chapters to come.

In Chapter Two, I detail the project's methodology, organizing the chapter around Harding's distinctions among epistemology, methodology, and methods. I first position this work in relation to the feminist and science and technology studies (STS) epistemologies, which inform the overall methodology, before examining the concrete research strategies I used to

[21] The research detailed in the chapters to come was part of a larger comparative research project, which examined the (dis)similarities of the convergence of HIV and wildlife conservation in two famous geographically diverse conservation settings: the northern safari circuit in Tanzania, probably the most famous wildlife conservation area on the continent, and Kruger national park, in South Africa, arguably the most famous protected area in southern Africa.

gather and analyze the data presented in this dissertation. Furthermore, the chapter examines issues related to the researcher positionality of both myself and my research assistant.

The third chapter, "Historical Traces in the Present: Identity, Health Care, Conservation, Externality, and HIV/AIDS," explores the ways seemingly distant historical forces have shaped and continue to influence the present-day HIV/AIDS epidemic in the northern safari circuit. I trace historical dynamics related to both conceptualization of identity and health care, as well as wildlife conservation, through Tanganyika's German and British colonial periods, the post-independence African Socialist government of President Julius, and the subsequent transition to neoliberalism, which commenced with the inauguration of Tanzania's second President, Ali Hassan Mwinyi in 1985. The central claim of the chapter is that, with the exception of the *Ujamaa* (a Tanzanian articulation of African Socialism) period—whether speaking of identity, health care development and access, or the rise of wildlife conservation—the country has a history of external influences and frictions that have powerfully shaped the development of all three phenomena. Unfortunately, the overall trajectory of these historical influences has been to the detriment of the Tanzanian people. Furthermore, this history continues to have a number of profound impacts for the state of HIV/AIDS in the country today.

Chapter Four, "Feminist Standpoint, Subjectivity, and Perceptions of HIV/AIDS Drivers among Conservation Professionals in Northern Tanzania," examines the dichotomous ways in which Tanzanian conservation professionals conceptualize the epidemiological drivers fueling the transmission of HIV in their professional and personal lives. During the course of this research, a trend emerged in which the most elite conservation professionals with whom I spoke consistently communicated their belief that individual behavior, irresponsibility, and

excessive alcohol consumption were at the center of continued viral transmission. In contrast, the majority of research participants, low and mid-level conservation professionals, repeatedly provided a different set of causal explanations. Such actors suggested that the continued transmission of the HIV virus was largely the result of the intersection of a number of extra-personal, structural dynamics: the economic development that has accompanied conservation and tourism in the area, the relative material inequalities that have resulted from such development, gendered inequalities and patriarchal social structures and cultural conceptions, and social geographies of mobility, isolation, and relaxation. To make sense out of these contradictory explanations, I draw on feminist standpoint theory and Garland's conceptualization of emergent Tanzanian conservation subjectivities, rooted in the theories of Foucault, Althusser, and Butler. The primary argument of the chapter is that elite conservation professionals are more likely to assert individual-oriented epidemiological drivers precisely because of their enculturation into a social location predicated on neoliberal individuality and ideas of meritocratic success and life experiences. Conversely, most conservation workers, who have not been as thoroughly enculturated into an individualistic world view and who regularly confront structural constraints in their daily lives, are more likely to ascribe causal epidemiological significance to the same structural forces within which they navigate every day.

Chapter Five, "The Materiality of Discourse: Impacts of HIV/AIDS in Northern Tanzania's National Parks," contributes new understandings of the ways in which the HIV/AIDS epidemic is impacting the conservation establishment. A significant body of existing literature explores the spectrum of the epidemic's material impacts to the conservation establishment. A good deal of the fifth chapter corroborates and validates previous research findings by exploring such

impacts in the social worlds of an as-of-yet unexplored conservation setting, the protected areas of Tanzania's northern safari circuit. However, this literature fails to acknowledge an equally important category of impacts: those rooted in discursively produced risk perceptions. What is not actually happening, but which is perceived as an ever-present catastrophic possibility (i.e. a risk), is impacting the conservation establishment in ways nearly as profound as those tangible, visible, and quantifiable impacts that previous studies have foregrounded. In order to tease out the ways these discursive constructs produced material impacts, I situate them in relation to three theoretical conceptualizations of risk: Beck's and Giddens' risk society, Douglas's and Wildavsky's cultural/symbolic perspective, and the governmentality school, which draws heavily on Foucauldian notions of discourse and biopolitics. Thus, this chapter (a) demonstrates the congruities between preceding research and my own findings and (b) expands our understandings of the broad range of such impacts through a novel reading of the intersections of discursive constructions and risk.

The sixth chapter, "There Are Questions Science Cannot Answer: Resistance to ABC-Based HIV/AIDS Interventions," interrogates the primary medium through which conservation organizations are working to promote HIV prevention, the ABC framework. ABC programs aim to modify the sexual practices of those working in the conservation industry by providing them with knowledge designed to persuade them to shift their attitudes and practices through conceptualizing their individual corporeality as the appropriate site for intervention. As such, these ABC-based programs function as a form of discursive Foucauldian biogovernmentality, albeit a not entirely successful one. Despite well-intentioned organizational responses and the widespread shallow knowledge which has resulted, many conservation actors challenge or

dismiss the relevance of ABC strategies. This chapter explores the disjuncture between the implementation of ABC-based prevention regimes and the lack of behavioral change which has resulted. All three prevention strategies were regularly challenged by conservation practitioners in the area. ABC-based attempts to orchestrate biopolitical control over conservation actors' corporeality are not successful in part because they fail to respond to the perceived structural drivers of the epidemic. Consequently, conservation professionals participate in counter-discursive formations, questioning, and thus undermining, the legitimacy of the ABC-based prevention techniques championed by their employers.

In the conclusion, I summarize my findings and explain why they are important. In doing so, I identify several ways this research contributes new frameworks to our understandings of the nexus of HIV/AIDS, discourses and practices of intimacy, political economy, and social structure within the northern Tanzanian wildlife conservation establishment. Additionally, I use this final chapter to reflect on potential alternatives to ABC-based prevention interventions and demonstrate that some research participants clearly articulated potential responses which dovetail quite nicely with the most recent scholarship regarding the next generation of HIV prevention.

CHAPTER TWO

Methodological Considerations Regarding the Convergence of HIV and Wildlife Conservation

"Science is not about making predictions or performing experiments. Science is about explaining." – Bill Gaede

Introduction

This chapter lays out the specifics of what I actually did in the field; what I did with the materials I collected during and after 10 months of fieldwork in northern Tanzania, from May 2009 to February 2010; what I know about how my presence and positionality impacted developments in the field; and the epistemological assumptions about knowledge, knowing, and knowers within which those specific activities were situated.[22] The initial research design and questions were based on the results of a pilot study conducted during the summer of 2008 as well as a review of the existing relevant literatures. Due to both logistical constraints and changing research priorities as the project developed, the aims, participants, and locations of this research shifted substantially, changes I address below. I end the chapter by examining some of the limitations of my research, particularly with regards to access, and the ways in which I dealt with ethical considerations related to this research.

Harding's (1987a) tripartite research distinction—methods, methodology, and epistemology—guides the organization of this chapter. I begin with the specifics of my

[22] Following Law (2004), I recognize that the production of knowledge, whether that produced about HIV/AIDS by northern Tanzanians involved with the conservation and tourism establishments or the knowledge produced by this research about those processes, is a messy and contingent process. In this chapter, I not only justify the strategies I followed and choices I made, but I also work to expose the shifts, obstacles, and failures which were all important factors that shaped both the substance and structure of this research process.

methods, and then explain how these methods fit within a feminist methodology, before finally addressing the epistemological foundations on which this methodology rests. Harding's research distinction addresses methods, that is, "techniques for gathering evidence" (1987a:2). Consequently, I describe the specifics of the individual and group interview processes I used, as well as the ethnographic observations, field jottings, and field notes. Central to discussions of methods are the choices we make about what to do with the evidence once we have collected it. For that reason, I address the specifics of my data analysis process, including interview transcription and the coding process.

The second component of Harding's trichotomy is methodology: "theory and analysis about how research should proceed" (1987a:2). Methodology includes how we position ourselves relative to our objects of study and where, how, and with whom we choose to employ certain research methods. These in turn depend on the kinds of knowledge our epistemologies lead us to privilege (Sprague 2005). I reflect on how my own social standpoint—that of a white, heterosexual, privileged, foreign, male HIV/AIDS researcher—likely impacted the kinds of discussions I could have, with whom, and where. Equally important to this discussion is the positionality of the young, up-and-coming, Tanzanian male conservation professional, who facilitated this research. Were it not for his insider position in northern safari circuit conservation circles, my access to and responses from local conservation practitioners would likely have been very different.

The final aspect of Harding's distinction addresses epistemology, which concerns theories about knowledge, who can know, and how knowledge is developed. Thus, I end the chapter by situating the questions I chose to ask and the methods I selected to answer them

within a short discussion of the feminist standpoint and the STS epistemologies. Integral to both theoretical frames is the understanding that knowledge is not something *out there*, waiting to be discovered by the objective researcher employing proper scientific methods. Rather knowledge is negotiated and produced in specific places by specific actors, whose own social standpoint and ideological commitments necessarily impact the knowledge produced.

Research Participants: Demographics, Access, and Sampling

In this section, I first outline the demographics of my research participants. Then I present a detailed discussion of how the researcher positionalities of myself and my research assistant influenced access and participant recruitment. I conclude the section with a discussion of the sampling techniques on which we relied.

Over the course of ten months of qualitative fieldwork, primarily in-depth interviewing and ethnographic observation and participation, my research assistant and I formally individually interviewed 66 people: 45 conservation professionals and 11 tourism professionals, all of whom also had formal wildlife conservation training, most at Mweka, though a few of the rangers had graduated from Pasiansi Wildlife Training Institute.[23] There are three levels of conservation training at Mweka—certificate, diploma, and advanced diploma—and all three were represented in my sample. Eight of the conservation professionals were high-level managers, while the remaining participants were spread evenly across middle and lower professional ranks. Of the 56 professional conservation actors and tourism guides with

[23] Throughout this document I refer to my research assistant using a pseudonym, Pastory, in an attempt to minimize the potential impacts of this work upon his professional career.

whom I spoke, 49 were men and 7 were women (all of the women worked in conservation, not tourism, settings). Though they ranged in age from early twenties to late sixties, most were clustered around two age ranges: late twenties to mid-thirties and late forties to mid-fifties. By Tanzanian standards, all of the conservation and tourism professionals I interviewed received substantial salaries and shared a degree of class and status privilege, though some appeared to make much more than others. Forty-three of the conservation and tourism professionals I spoke with were married. All of the women I spoke with and all but one of the older men I spoke with were married. It was only younger, male protected area employees who were unmarried.

In addition to the 56 conservation and tourism professionals I spoke with, I also interviewed three long-time middle-aged male tourist hotel managers and two middle-aged local bar matrons, none of whom had any formal conservation training and all of whom were married.[24] The remaining five research participants were HIV/AIDS and health NGO workers, one middle-aged married Tanzanian woman, two younger Tanzanian married women, one older married Tanzanian man, and another younger unmarried Tanzanian man. Having addressed the demographic characteristics of the participants of this research, I now turn to a brief discussion of issues related to access and then the sampling techniques used.

[24] Although wildlife conservation establishment professionals constitute the large majority of the respondent sample, my attention to gendered experiences and understandings, coupled with my frustration at the low numbers of women conservation professionals with whom I could speak, led me to examine outside perceptions of conservation and tourism professionals by those with whom they regularly interacted. In this way, these other interviews and focus groups served as a form of data triangulation.

In the summer of 2008, I conducted a pre-dissertation feasibility study in northern Tanzania, during which I established contacts at Mweka and received institutional backing for the original institutional ethnography and curriculum development project I proposed. This backing was, as noted earlier, arbitrarily revoked approximately a year later as new personnel moved into positions of leadership. This pilot project was necessary to discern (a) if Tanzanian conservation professionals did, in fact, believe the epidemic was impacting conservation personnel, organizations, and processes and (b) if such conservation actors would be willing to discuss sensitive topics like HIV/AIDS and sexual practice with an outsider. As a result, when I arrived in Tanzania, I already had two advantages: (1) a small amount of relevant, original data with which to inform the start of the project and (2) a handful of strong contacts with relatively senior and very well-respected members of the conservation community. These initial contacts proved to be very valuable for initial introductions in the field. Furthermore, it was through one of these gentlemen, the then medical doctor at Mweka, Dr. Julius Zelothe, that I was first told of the exceptional young man who would become my research facilitator. Furthermore, Dr. Zelothe had close relationships with several high-level conservation actors. Being able to invoke his name or to have him mention my presence in advance of meeting prospective respondents opened a handful of doors which otherwise would surely have remained firmly closed.

My initial impression, which was reinforced time and time again, was that in Tanzania, not unlike the United States, who you know and the legacies within which you are placed matter profoundly. The early Mweka affiliation mentioned above certainly helped. Access to potential research participants was also facilitated by my mentor, Dr. Mara Goldman. Her own research and reputation in the area were crucial to my gaining access to one of the park

wardens, who was a participant in this research. Furthermore, it was through a member of her symbolic Tanzanian family, who had just graduated from Mweka, that I was introduced to my research assistant, Pastory. Second, her established relationships with influential conservation NGO personnel precipitated a much warmer reception from these individuals than I'd have had if I had approached them cold.

The final, and ultimately most powerful, situated standpoint and personal history which opened up access to potential participants was that of my research assistant. As a well-liked and respected life-long area resident, he was able to provide opportunities to recruit research participants that were based on his personal relationships with conservators and his excellent reputation. Additionally, the several years which Pastory spent diligently studying, distinguishing himself, and excelling at the most highly respected institution for wildlife conservation training in the country, meant that he was very well acquainted with, and respected by, a diverse group of conservation professionals working throughout the research sites involved in this project. It seemed there was no place, in town in Karatu or Mto Wa Mbu, at the offices of Lake Manyara and Tarangire national parks, or in the various NCAA section ranger offices, that he did not walk in and immediately see people who knew and respected him. It was very commonplace as we walked or drove from one location to another for Pastory to tell me to stop or pull over. We would then approach someone I had never met, only to be greeted warmly. These encounters often led to a series of initial informal meetings, usually over lunch or a beer during which we would establish a positive rapport, and then schedule a formal interview for sometime in the near future. Often informal rapport and formal interviews with one conservation professional opened the door for additional interviews with colleagues. It

was, thus, a combination of personal contacts, establishing rapport over a series of informal encounters, and snowball sampling techniques which facilitated the vast majority of our interviews. This sampling strategy worked: our response rates were quite high. Over the entire project, there were only a handful of potential participants who declined to be formally interviewed.[25]

However, it would be a mistake to call the sampling technique one of convenience. Rather, we employed a purposive technique (M. Patton 2002), the main qualifications for which were current employment in the conservation or tourism establishment and formal conservation training.[26] Once we had established access to any of the institutional conservation settings from which the respondents were drawn, we would then use chain referrals to increase our participant pool (Biernacki and Waldorf 1981). This combination of sampling techniques was an appropriate way to approach a research agenda which explicitly queried how conservation professionals understood and responded to the HIV/AIDS epidemic. Furthermore, as Penrod et al. (2003) assert, this is a methodologically justifiable sampling

[25] This assertion, however, belies an important feature of Tanzanian culture. People go to great lengths to avoid disagreeing, saying no, or voicing a negative opinion. There was a small number of people, who we repeatedly tried to interview, but despite their repeated verbal consent, the interviews just never seemed to happen. I don't think this coincidental. It would be far more culturally appropriate to verbally acquiesce to an interview and then simply never follow through, than it would be to flat out say no. In fact, this was the source of no small amount of frustration in the field, as we would have interviews lined up only to have them endlessly delayed at the last minute or have someone simply not show up or return calls. Of all the people we asked to interview, only three declined to be interviewed. Another group, approximately five people, agreed to be interviewed, but were never interviewed due to logistical constraints.

[26] Once I felt as though we had reached theoretical saturation during the interview process, we chose to widen the research participant sample to include a number of people who worked with, but not for conservation organizations and actors as a way to privilege a greater diversity of voices.

technique when attempting to gain access to hard-to-reach populations. Often located in isolated environments and protected by institutional affiliations which require multiple research clearance permits to penetrate, it simply made sense to use personal contacts to recruit an initial participant in each location and then to augment the research participant pool utilizing a chain referral sampling technique.

As the research progressed, during interviews with male conservation professionals, I repeatedly heard assertions which situated the responsibility for the ongoing state of the epidemic with others, most often women, in general, and commercial sex workers, specifically. There appeared to be a pattern in which this repeated shifting of responsibility away from the respondent mobilized patriarchal social understandings. As a result, I began to be increasingly skeptical of the validity of responses which indicated, for instance, that men could not resist engaging in transactional sex based on the kinds of attire some women in the area wore. I had a nagging feeling that I was hearing only one side of the story and actively sought out (throughout the research process) the voices of women and people who interacted with, but were in a position of structural marginalization vis-à-vis, conservation professionals. We requested and were granted formal interviews with all but one of the female professional conservation actors we encountered. As one might imagine, their perspectives, particularly regarding men's sexual behaviors and understandings, were markedly different from those of their male counterparts. Over the course of ten months, I was able to interview seven female conservation professionals. While that may seem like a gender-skewed sample, it is actually a representative sample, given the male-dominated nature of wildlife conservation in northern Tanzania.

In sum, in this dissertation I draw primarily on in-depth interviews with 66 black Tanzanian individuals, as well as three focus group interviews. While the core of the interview data was provided by conservation and tourism professionals, I felt that additional data from those who interact with conservation and HIV/AIDS in the area was a useful source of contextualization and triangulation. The conservation "field" is an inherently gendered social domain structured via social locations and inequalities where "gendered fields provide gendered opportunities … and obstacles." Because the field of conservation is fundamentally a masculine one, the inclusion of perspectives located at its margins made sound methodological sense (Sprague 2005:122). Having now addressed the epistemological underpinnings of this research and the demographics of and access to research participants, I now turn to a short discussion of the specific methods I employed during the course of this research.

Methods: Interviews, Focus Groups, Ethnographic Observations, and Field Notes

While remaining attentive to the study's epistemological foundations and the impacts of the situated standpoints of Pastory and me on who participated and what they were willing to share, I engaged the respondents using the following qualitative methods: (a) in-depth, semi-structured, individual and (b) focus group interviews; (c) ethnographic observations; (d) daily reflexive field jottings; and (e) field notes. Together, these methods constitute a methodologically robust qualitative research design: "fieldwork in a naturalistic setting … [involving] the collection and analysis of multiple types of data, with the objective of understanding the social meanings participants place on the events, processes, and structure of their lives" (Carter 2002:298). By using several types of data collection and by spending an

extended time immersed in the field, we were able to facilitate a faithful representation of the viewpoints of research participants and to "describe a system of relationships, to show how things hang together in a web of mutual influence or support or interdependence" (Becker 1996:56). Toward these ends, my research activities foregrounded two methodological trajectories designed to illuminate aspects of social life: asking people about their understandings and knowledges regarding their lives and experiences and observing what people actually do, all the while remaining attentive to potential discrepancies between the two (Goffman 1989, Van Maanen 1979). Over the course of this project, my interviewing and observational approaches became increasingly refined with time and more efficient with practice.

Following a dominant trend in qualitative sociological inquiry, I used individual in-depth semi-structured interviews as the primary data collection strategy for this research (Tjora 2006). Pastory was present for all but five of the 66 interviews.[27] The interviews ranged in length from 25 minutes to 2 hours, though most were roughly one hour long. Each interview began with my securing informed consent. However, in most instances the participants were aware, in advance, of the goals and outcomes of the research.[28] Each interview also began with assurances of strict confidentiality. Many people provided candid answers which, could they be correctly attributed to the individual, could result in significant ramifications for employment.

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[27] The five interviews which Pastory was not present for were with staff from Tarangire National Park, occurred toward the very end of the fieldwork, and thus I had no problem conducting these five interviews in Swahili by myself.

[28] This research project was examined, approved, and renewed by the University of Colorado's Institutional Review Board (protocol 0309.16).

For that reason, I identify no participants by name. I refer to respondents only by their gender and professional title (or a general indicator of their position in the professional hierarchy if using a title would allow identification). The majority of these interviews, 45, were almost entirely in Swahili, while 9 were almost entirely in English. In the remaining interviews, both English and Kiswahili were used for extended periods.[29]

The nature of our interview interactions shifted over the course of the fieldwork. At the beginning, Pastory was the central conduit through which information passed. His role increasingly diminished as our time in the field progressed and I became more fluent. The interviews took place in a wide range of settings, both formal and informal, including conservation organization offices, quiet restaurants (particularly the Paradise restaurant in Karatu), my vehicle, and *porini,* literally in the bush, underneath the shade of acacia trees or leaning up against a motorcycle. Because, in many cases, we were asking very busy people to take time out to talk to us, we were happy to conduct interviews anywhere the participant desired, provided it was quiet enough to facilitate a digital recording. With the exception of one interview, all of them were recorded with the informed consent of the respondent.[30] In addition to recording the interviews, I took shorthand notes, enabling me both to pursue additional lines of questioning in response to participant statements and to later reflect on my own thoughts and emotions (Weiss 1994). The notes were also useful during the transcription

[29] The choice of interview language was left to the participant.

[30] Returning to the skepticism with which conservation researchers are viewed, discussions of informed consent often revolved around what would be done with the audio recording and who would have access to it. In almost all cases, strict promises of absolute confidentiality with the recordings was sufficient to alleviate such concerns, though in one case, the participant's concerns could not be assuaged.

process, in the few instances where the recording became unintelligible and we had to simply note what topic was being discussed.

While I began by using an interview schedule, I quickly ceased using the written list of questions for three main reasons. First, I felt the forced reading of questions inhibited the natural progression of the interviews and our ability to establish and rapport. Following Hermanowicz (2002), I attempted to elicit revelations of intimacy by utilizing sequenced topical stages. I started with non-threatening introductory questions designed to establish baseline life history data, work histories, and HIV/AIDS-related knowledge. I moved on to more sensitive topics such as sexual behaviors, usage and understandings of condoms. I also explicitly provided space at the end of each interview for the participant to ask me any questions he or she might have. During each interview I engaged in active listening, used open-ended questions to explore ideas which participants emphasized, and asked participants to reconstruct events and trainings they had been a part of (Seidman 1991). The second reason I discarded the interview protocol was that, since the interviews were only semi-structured around a handful of broad topics, it was fairly easy to keep those broad topics in mind, thereby negating the need to have them written down, especially as the work progressed. Last, and most important, I was seeking to understand how people understood and articulated the complex range of dynamics, which influence the HIV/AIDS epidemic in both their professional and personal lives. Thus, stringent adherence to a set of questions largely developed prior to entering the field threatened to obfuscate emerging themes and to restrict my understandings of these complex dynamics by preventing me from “making room for the unanticipated” (Becker 1996:61).

Focus groups constituted the second interview strategy. I conducted four focus group interviews with three different groups of people for three very distinct reasons. An initial focus group of relevance to this research, but not actually a part of it, was conducted with a group of international conservation actors during the feasibility study in the summer of 2008.[31] I do not count this first focus group among the three conducted during this research since it was carried out as part of a pilot project and not during primary field work. The first focus group which we explicitly conducted as part of this research, that was actually a part of this data collection, was also with conservation professionals, this time upon my arrival in Tanzania in 2009. The second was with a group of Tanzanian commercial sex workers, who self-reported having many clients in conservation and tourism. The final two were with a group of HIV/AIDS NGO workers.

During my feasibility study in the summer of 2008, I conducted one focus group with five conservation professionals of varying age and occupational rank (though all men) to develop and refine questions and ensure topical relevance (Bloor et al. 2001, Morgan 1997).[32] I then used these data to inform the development of the original interview schedule I took into the field, as well as to write my dissertation proposal. Once I began the main period of data collection in Tanzania in 2009, I conducted one initial focus group with all male conservation professional of varying age and occupational status to reconfirm the legitimacy of the topics I

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[31] This focus group was conducted with a group of multi-national conservation professionals in South Africa in the summer of 2008. It was this focus group that provided the data which informed the original development of a research schedule. Since it is relevant, though only tangentially, to this project, I mention it here, but do not count it among the primary sources of research for this project.

[32] I mention this focus group here, as it was central to the development of my original research questions and goals, but do not include it in the list of research explicitly carried out as part of this dissertation and interview data from this focus group does not appear anywhere in the coming chapters.

had selected and the methods through which I was asking questions. The results of this focus group slightly shifted in both the foci and structure of the individual interviews which followed.

The other three focus groups I conducted were done for markedly different reasons. By virtue of the heavily masculinized nature of the conservation and tourism establishments in northern Tanzania, my research participant pool was also overwhelmingly male. But many of the responses I regularly received reflected patriarchal social structures and socialization. For that reason, I actively sought out women, who had some relation to the conservation and tourism establishments. This involved speaking with nearly every female conservation professional I encountered, but these were so few that it did not satisfy my curiosity. Over the course of numerous interviews with male conservation professionals, the topic of commercial sex workers was one which regularly surfaced and as I stated above, many men blamed women for the state of HIV/AIDS. I decided, therefore, to try to talk to some women who worked in this capacity. However, my social standpoint and positionality presented significant challenges to doing so. After months of simply being seen around the establishments where many of these women sought out clients, I established a contact that offered to arrange a number of interviews with commercial sex workers. However, these women were skeptical and tentative about meeting with me individually. When one suggested that they would be more comfortable talking with me together, I readily agreed to a group interview.

For similar reasons, I sought out other women who had contact with conservation professionals regarding issues surrounding HIV/AIDS. There was one health NGO working in Karatu, which had provided a number of HIV/AIDS prevention and awareness trainings to members of the conservation community and with whom I conducted two focus group

interviews. The woman who ran the NGO offered to set up a group discussion with a number of her trainers. When the first such group discussion took place, conversation was heavily dominated by two men in the room who worked for the NGO, despite my explicit attempts otherwise. As a result, I requested a second group interview with only women present, so that I could pointedly ask them what they thought of the kinds of information men in the area had been providing. Nevertheless, there were still two men present, Pastory and I. So, two of the focus groups I conducted were aimed at identifying themes, focusing topics, and refining the ways I sought to answer my research questions. The other three focus groups, one with commercial sex workers, one with both men and women HIV/AIDS NGO workers, and the one with only female health and HIV/AIDS trainers, were designed to facilitate the inclusion of more marginal perspectives. Over the course of all of these individual and focus group interviews, I regularly examined and compared data collected at different time points to ensure that my themes remained consistent, but in a way that allowed me to continue to probe new areas of interest.

In addition to asking people how they understood the HIV/AIDS epidemic and how it had impacted their personal and professional lives, I also pursued a more ethnographic approach to data collection, focusing on the details of daily life and what people actually did and said to people other than me. I was attempting to examine the webs of significance vis-à-vis HIV/AIDS which we have spun and now find ourselves suspended in (Geertz 1973). Relatedly, I recognize that these observational strategies are always mediated by my researcher positionality, resulting in understandings which do not just reflect, but also construct reality (Clifford and Marcus 1986). These ethnographic methods were appropriate because of two

confounding issues related to the interviewing process: (1) the Hawthorne effect, in which interviewees tailor their responses to what they think the interviewer wants to hear (Landsberger 1958), and (2) the potential gap between what people say they do and what they actually do.

To try to mitigate these possibilities, I triangulated interview data with several hundred hours of ethnographic observation and participation in drinking establishments and restaurants primarily frequented by conservation and tourism professionals, but also during car rides, walks in the bush, and time spent at conservation organization offices. Because I never pretended to be anything other than a researcher, I made no attempt to hide my recording of anecdotal observations, unanticipated discoveries, reflexive observations, and field jottings. Of course, some settings, such as conservation or NGO offices were more conducive to note taking than drinking establishments, for instance. However, I still made notes while out in social environments. When it was out of place to be writing in a notebook, I took notes using my cell phone. If someone said something that I wanted to make sure to record verbatim, I would take out my cell phone and pretend to be writing a text message, which in Tanzania, even in the middle of a conversation, is not considered rude by most. This technique was useful insofar as it allowed me to record things I may have otherwise forgotten, but to do so in a way that did not upset the social demeanor of the moment. I used these field jottings as prompts and pneumonic devices to facilitate writing detailed field notes every evening I was in the field (Emerson et al. 1995). Because my data collection process was iterative, this process of writing detailed field notes on a daily basis also served as a time for reflection and as an impetus to

maintain or adjust our interview questions and foci as appropriate (Goodwin and Horowitz 2002).

Although he clearly does not represent a research method, the last major source of research data was Pastory. We spent a lot of time together and I wasted very little of it. Often, during the course of interviews, someone would reference an aspect of social structure or cultural practice that I was either unfamiliar with or did not understand how it related to the topic at hand. I used our time in the car, for example, to ask for explanations and/or clarifications. He was in a unique position to interpret and challenge or validate the things that people were saying and doing and I often asked him to do so. Furthermore, toward the end of every day, I asked Pastory to tell me what he thought was interesting, insightful, or problematic that had happened that day and why. His perspective often provided an important corrective to my interpretations and helped me to develop more culturally and historically sensitive explanatory models. Using both Pastory's insights and the process of writing and reflecting on field notes, I was able to look for both consistencies and ruptures in the larger patterns comprised of these data sets. Both the continuities and fractures are detailed in the chapters to come.

In combination, I used these qualitative methods, of semi-structured interviews, focus groups, and ethnographic observations and field notes to accumulate a great deal of detailed, thick data. What I did with that data is the focus of the next, short section.

Inductive Data Analysis: Transcriptions, Codes, Memos, and Code Families

The process of gaining access to and conducting interviews was time-consuming, sometimes frustrating (yet rewarding), and tended to progress unevenly. This meant that Pastory and I had some lulls in data collection; at other times our schedule was constant and intense. However, the lulls were not unproductive for two reasons: first, they provided opportunities for more ethnographic observations of the minutiae of daily life and second, because they facilitated the ongoing process of interview transcription. Although I prioritized the acquisition of data over its transcription, we were able to transcribe some of the interviews within a matter of days of recording them. We used Dragon Naturally Speaking 10, a voice recognition and transcription software program, which I had trained to recognize my voice.[33] I did not subject Pastory to the transcriptions of the English interviews. I did them myself. I slowed down the playback speed on my small digital voice recorder and listened to the recording through a single ear, while simultaneously wearing a dictation headset. In many cases, I both listened and dictated simultaneously. In less audible recordings, I had to listen to a short segment, pause the audio recording, dictate the exact phrasing, and then repeat the process, occasionally for the duration of the recording. For the interviews in Kiswahili, Pastory and I would listen to a short, usually 10-second, fragment, pause the recording, agree upon the exact phrasing and correct translation (while I used my hand to cover the dictation headset microphone) and then I would dictate the agreed upon translation. This process was incredibly

[33] Dragon only recognizes a single voice, which meant that I had to verbally repeat the entire interview, since there were usually three voices in the recordings, rather than simply uploading the audio files into the program.

time-consuming, eating up nearly six weeks' worth of eight-hour days over the course of the project. While we were doing these translation transcriptions, I also kept basic, shorthand memos as we encountered what seemed like an important theme. Following inductive analytic field techniques, these field transcriptions and field note reflections were fed back into the ongoing data collection loop. Pastory and I completed all transcriptions just prior to my departure from Tanzania.

Because I was experiencing computer problems on and off over the course of my time in Tanzania, I made the choice to hand write field notes. In part, the decision was motivated by the cathartic quality of writing by hand as a form of emotional therapy as opposed to typing on a computer. While, at the time, this choice was justified, it became problematic in data analysis, because I could not easily upload my field notes into Atlas.ti, the qualitative data analysis software program I used to code my interviews. As a result, when I began analyzing data, I reread all of the more than 700 pages of field notes I had written, looking for general patterns and making brief analytic and theoretical memos as I made my way through the pages. I then used those patterns, in addition to the main substantive interview foci, as general starting points for coding when I began analyzing interviews in Atlas.ti.

While there was a distinct point at which I began focused computer-facilitated analysis of the interview and field note data, it is worth repeating that from the very beginning of data collection, I inductively mentally coded data on a daily basis, trying to discern patterns, and make some sense of "what it meant" so I could better focus future interviews. Once my main focus turned to data analysis, however, I used open coding procedures, a form of thematic analysis dominant in sociological analyses (Glesne 1992). While I followed grounded theory's

charge to remain faithful to the data and to allow codes, concepts, and categories to emerge out of the data (Glaser and Strauss 1967), I found the rigid procedural guidelines constricting and counter-productive. The highly formulaic procedures of grounded theory are intended to produce a valid claim to scientific rigor. However, the inherently constructivist nature of qualitative data collection and analysis renders such assertions ineffectual (Thomas and James 2006).

Data analysis is fundamentally an interactive process between the situated researcher and his or her data (Lofland et al. 2006). As I began to read through each of the interviews, informed by the codes and categories which resonated with me, as well as memos I wrote, during a preliminary examination of my field notes, I coded each interview topically line-by-line or theme by theme, whichever was more appropriate at that time (Charmaz 2006). As a result of the ten months of analytically engaging data during our evolving interview work, I entered the coding stage with a good idea of the overarching framework. During this focused open coding, I indentified 133 recurrent themes, or codes. Those 133 codes were further refined into 18 code families, which became the fundamental data organization schema for the next several chapters.

Once the codes were determined, I printed the data, organized by code, and used paper, scissors, and tape to organize the coded data into larger categories. This process enabled me to play with the order of presentation. Then, in a break from grounded theory protocols, I began looking for existing theoretical frameworks that helped me to make sense of and explain the variations and seeming incommensurabilities of the enormous data set I had collected (I did not use the data to construct theories in reverse). Finally, I worked methodically through both

the stacks of interview data and the theories I selected to provide increased analytical insight into what the codes meant. In this manner, I (re)created a version of the realities detailed over ten months of interviews, observations, and field notes. I made no attempt to synthesize these "realities," but rather to show them in light of their complexity. Despite our adherence to protocol during interviews, transcription, and early field analysis, both Pastory and I unwittingly significantly shaped the interview data we collected, who we could talk to, how we could interact with them and where such interactions took place. Thus, the next section focuses on the ways in which our positionalities impacted the research process.

Methodological Considerations of Positionality in the Research Process

Researcher positionality and social standpoint impact the situated knowledges he or she can produce (e.g. England 1994, Lykke 2010, Milner 2007, Wolf 1996). I continually tried to reflect on how my intersectional subject position—white, male, heterosexual, young, class-privileged researcher—significantly impacted this project, not only with respect to the ways my identity impacted the research dynamics, but also to my own intellectual and emotional responses, which, of course, colored the decisions I made as the project unfolded. The positionality of my research facilitator—Tanzanian, male, heterosexual, conservation establishment insider—also greatly affected the outcomes of this research, in many ways making up for the sociocultural distances produced by my positionality. Although it is much harder to gauge how, I am also sure that Pastory and my positionalities also impacted what people were willing to tell us. In some ways our social standpoints facilitated conversations, while in other ways they were hindrances.

During this research, I nearly always primarily felt I was immediately identified as a white foreigner. In the northern safari circuit, the home to the most famous conservation areas in the country and a region saturated with foreign NGO, FBO, and aid workers, the Tanzanian imaginary of whiteness revolves primarily around two dynamics. First, the history of whiteness in this area cannot be divorced from the development of conservation areas. More than a handful of scientists have made fine careers for themselves studying the ecology and people associated with these ecosystems, yet local residents perceive they have received little in return.[34] As such, many residents of the area with whom I spoke viewed our presence as one fundamentally motivated, not by altruism, but by extractive, personal desires. Among conservation actors in the area, it was widely known that I was interested in interacting and speaking with conservation professionals and my conservation insider research assistant was a well-known area resident who had graduated from Mweka. So, for many, my very presence was bound up with their understandings of and feelings toward the legacies of the conservation research within which my own work was broadly situated, although not explicitly by me. This skeptical ambivalence toward conservation researchers was most often displayed via doubts about our research or if we would do what we said with the information we acquired. Second, the other significant group of *wazungu* [foreigners, colloquially understood as white people] found in the area was involved in NGOs and FBOs in the area, many of whom were there for health- or HIV/AIDS-related projects. Despite professed good intentions about helping the

[34] Indeed, the Serengeti Research Institute has been in existence since the mid 1960s and has seen a steady ebb and flow of American and European scientific researchers ever since its inception (Garland 2006).

people of Tanzania, my impression was that many Tanzanians likewise viewed these people's seemingly altruistic motivations with skepticism, one informed by a long history of (neo)colonial domination, mobilized through discourses of development and help. Regardless of which group I was associated with (and researching HIV/AIDS in conservation spaces seemed to place me squarely within both imaginaries), most often my impression was that my presence was viewed with skepticism and distrust.[35]

For example: two months into our fieldwork, Pastory and I were eating lunch with a long-time conservation professional friend of his at the Msimbazi Bar and Restaurant in Karatu, located about 15 miles from the gates of the NCA. Although conservation actors in the area were largely aware of my intentions, as was standard, this introductory meeting was more about establishing rapport and achieving a level of comfort with this potential research participant than it was about diving immediately into a discussion about HIV/AIDS. Amidst the cacophony of several televisions blaring a mixture of European football and East African Swahili music videos, I was bluffing my way through a heated exchange between Pastory and his friend about the rumors of personal indiscretions on the part of John Terry, a professional English footballer. At that time we were unexpectedly joined by a fourth man, who claimed to also work for the NCAA (I was later informed his affiliation with the NCAA was not that of a conservation professional, but rather that of a short-term contract worker involved in an infrastructure project). Since he seemed to know the NCAA professional at the table, we welcomed him and otherwise paid little attention to his arrival. At the next lull in conversation,

[35] As I discuss below, that skepticism was most forcefully countered by the legitimacy the presence of Pastory lent to the project, not by anything I did or said.

he turned his attention to me, asking who I was and why I was there (as I was the only *mzungu* in an otherwise crowded local lunch time spot). After answering his question, his eyes narrowed, he leaned forward across the table, and began a different line of questioning: "If I came to the United States and started asking you questions, like all these researchers do here with us, would you answer them? Why should we help you when you are not here to do anything for us?" He appeared unsatisfied with my answer that, yes, if he came to my town and was conducting research about a professional group to which I belonged, I would happily reciprocate the favor. Undeterred, he kept repeating the question in slightly different ways, each time eliciting the same response, which resulted in him becoming increasingly more agitated. After four or five rounds of this, which led to nervous sideways glances from both Pastory and his friend, I responded that if he was going to keep asking me the same question, but would not accept my repeated answer, perhaps he should stop asking the question. This was an answer he did not appear to like. At this point, it was clear that the situation was escalating into a confrontation of sorts, as I had just responded in a way that seemed to be taken as an affront to the man's prestige (Pastory later told me he believed the man had interpreted my response as a challenge to his masculinity). In Tanzania, public disagreement and confrontations of this nature are avoided and it was at this point that the man who had originally joined us for lunch politely excused himself and the fourth man from the table. They appeared to exchange some tense words at the entrance to the Msimbazi, the fourth man left, and the gentleman we were eating with returned, dismissing the incident and muttering an apology about the hard-headed nature of the other man. Other than thinking it was an odd

interaction and reflecting on it in my field notes for that evening, I did not pay any mind to the incident.

Within a week, Pastory and I began to hear a rumor that, despite what I was telling people, I was actually a spy for CNN, who was there to write a story about how everyone working in the NCA was HIV+ and that tourists should stop coming to the area. Perplexed by where such a story might have originated, Pastory began to ask around only to discover that the man who had confronted me at the Msimbazi had promptly left the bar and began telling the conservation professionals he knew to stay away from me. Of course, as the well-meaning researcher, I had a hard time understanding why this problem had occurred. However, the longer I witnessed interactions between *wazungu* and area residents, the more I came to see the reaction of the man as a reasonable response to my own positionality as a white researcher, a response which he could not divorce from the histories of those who had come before me.

On the other hand, a second intersectional identity category of my social standpoint, heterosexual masculinity, greatly facilitated this research. The conservation and tourism establishments in the area are very heavily dominated by men and I engaged in impression management as a guy's guy to open doors and facilitate conversations. Walking into environments where I was unknown with a well-respected local man generated a more welcome reception than I would have received alone, of that I have no doubt. Being part of the boy's club informed nearly all of my interactions with male conservation actors. First, in the patriarchal conservation environments I navigated, there was never any doubt that men were simply more respected and thus granted increased access to the world of conservation and

tourism. Second, during interviews, particularly when I wanted to broach discussions about sexual behavior, condom use, or perceptions about condoms, I often relied on introducing the subject by talking about my own use and feelings surrounding condoms. This strategy of sharing gendered, personal information with participants was a successful way to open up a space for a conversation, which otherwise would have been awkward at best.[36] Last, a great deal of my ethnographic research involved informal observations and conversations that took place in bars and *nyama choma* establishments, often after dark and well into the night. These establishments were not environments in which one often, if ever, saw unaccompanied women, particularly after dark. Yet, they were the best environment for me to meet new potential participants, to establish rapport, and to watch how transactional sex dynamics unfolded, as it was within bars that I saw such interactions initiated and negotiated. Perhaps, if I were a white woman, my presence in such establishments would have been tolerated, but I am certain it would not have been warmly embraced around tables filled with laughing male conservation and tourism professionals, drinking round after round of beer, and regaling each other with stories from the bush. The stories told in the bar often blended into each other, revealing the masculine domination of women, the landscapes in which the men worked, and the animals and people they encountered. It was my status as a man that allowed me to be in these environments and bear witness to such natural conversations. Being seen at Paradise, or

[36] My masculinity was mediated by yet another identity category, age. Given the importance of age-set social differentiation, it was not surprising that it was younger men, either around my age or younger, with whom I had the most informal feeling interviews and who provided the most detailed information. The greater the age difference between myself and the participant (particularly with older participants), the more formal the interview and the more general the responses.

Msimbazi, or the Elephant bar on a regular basis made a difference in who I could approach and how I would likely be received.

Toward the end of my time in Karatu, I was working to track down a couple of safari driver-guides other informants had mentioned to me, but with whom I had been unable to connect. One night, per our usual routine, Pastory and I were hanging out and observing the happenings at the Elephant bar, when we saw both men sitting at a table across the patio. We went over, introduced ourselves, and sat down for a beer. Several hours (and beers) later, Pastory broached the subject of talking to them at a later date about HIV/AIDS and conservation. As with most participants, they first gave me a sideways glance, asked why, and then told us they would think about it. Several days later, one of the gentlemen called me and informed me that both he and his friend would be happy to talk to us. When we did sit down to talk, I asked the man what had helped him make up his mind. His response was that he knew we must be legitimate because he, and his friend, had seen us hanging out in the bars night after night with other men they knew and respected. Thus, my ability, as a man, to move around in the social geographies of primarily masculine relaxation establishments mattered.

Related to this unfettered access to locations where men relax was a second intersectional positionality, which impacted my work, and that was the way in which my class privilege interacted with my heterosexual masculine standpoint. When men are relaxing in these drinking establishments, part of the camaraderie is the result of displays of brinksmanship which often accompany the recounting of stories designed to demonstrate masculine prowess. One after another, men buy each other beers and *nyama choma* and this display of class privilege is intimately tied up in the performativity of heteronormative

masculinities. I have no doubt that there were many people who perceived that I was well-off (as I was) and knew I would pay for a few drinks and took advantage of this. But I also know that other, more considerate, men were watching, taking clues from, and even participating in these dynamics. These informal interactions and deeply social performances of heteronormative masculine prowess, mobilized through finances, were a key element in my acceptance by these men. It was because of this that I consented to "being used." And, indeed, as I describe below, for some, though not all, of these male conservation and tourism professionals, sitting at the local watering hole and speaking Swahili with the only *mzungu* in the establishment, being bought beers by me and reciprocating by buying beers for me, brought with it a degree of social status for both myself and the other men involved. This establishing of class-based masculine camaraderie opened more doors than any official research clearance paperwork I could have presented.

The last identity category which profoundly shaped the structure and substance of my research was an achieved one: that of a PhD researcher (McCorkel and Myers 2003). This subject position, however, worked to both open up and close off avenues of access to participants. For most conservation practitioners who were not at the very top of the conservation hierarchy, my impression was that they do not often interact with those working on advanced degrees, much less in a situation where such a person is validating them by asking for their experiences and understandings. For many of these respondents, it seemed as though the notion of working on a PhD takes on an almost mythic quality (of course one mediated by my whiteness and status as a foreigner) and this seemed to result in their high degree of willingness to participate. Furthermore, my ability to mobilize the category of researcher

opened doors to speak with experts: government HIV/AIDS officials, medical doctors at hospitals and clinics, and conservation professionals. However, for those at the very top of the conservation hierarchy, the possibility of working on a PhD, either in Tanzania or even better abroad, was a very real one to which many aspired and the respect and social status which accompanies a doctorate in Tanzania only appeared to materialize once the doctorate was conferred. Thus, in the eyes of the most elite conservation professionals with whom I spoke, I was nothing but a pesky student. These elite made sure that I remembered my place while studying up (Nader 1972). Even gaining access to these individuals' offices required persistent efforts over months' worth of time. Despite the ways in which my status as researcher did eventually open doors, each of these interviews took place in contrived official office settings, were repeatedly interrupted by phone calls and other official business, and began with my being asked exactly how much of their time I was looking asking for. As Conti and O'Neil (2007) pointed out in their reflections on "studying up," even the physical layout of the spaces in which these interviews took place was designed to reinforce an uneven power dynamic that disadvantaged me.

As well, consistent with the reinforcing of power dynamics associated with studying up, my research goals and methods were even challenged in these settings. One elite protected area manager gave off an annoyed air that I chose not to pursue my research through surveys, saying, "It would be so much better if you had a survey I could answer," though he did not seem to recognize there are kinds of data conducive to surveys and other kinds that are much more difficult to capture using that research method. Even the clothes I wore came to matter in these situations. My clothes took a beating over the course of more than a year and a half of hand

washing. Toward the end of my field work, I was chastised by a senior conservation professional for entering the office wearing a pair of pants that had a small hole in the knee—the product of repeated washing, not negligence. Each of these techniques served to remind me exactly what my social position was and to instill a sense of gratitude that I had even been granted an hour of time.

While my positionality impacted the substance and structure of my research, it was not my social standpoint alone which shaped such dynamics. Indeed, in some ways, the social standpoint and positionality of my research facilitator, Pastory, impacted the successes of this research in ways I could never have.[37] For the purposes of this research, he was the consummate insider, gatekeeper, and translator.[38] Born and raised on the border of the NCA in a community where the area Section Ranger lived and staffed a conservation ranger station,

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[37] I am quite uncomfortable labeling Pastory simply a research assistant, although I do so because under conventional research protocols that is the role he fulfilled and I did pay him a meager salary for doing so. However, he was more of a research collaborator, facilitator, key informant, and someone who helped me to understand and navigate the social and cultural terrain of northern Tanzania. At times, he even seemed to take the research endeavor far more seriously than I did. There were many days, when despite our best efforts, we would be stood up, have doors shut in our faces, or find people simply entirely uncooperative. While I tried to remain calm and emotionally uninvested in such setbacks, they clearly and visibly upset Pastory. I have no doubt this is because of his profound desire to do well and to fulfill the kinds of tasks I had asked of him – first and foremost of which was securing access. In the end, I am honored to call him, above all else, a close friend.

[38] When I entered the field I had several months of intensive Kiswahili training and spoke and wrote with an intermediate proficiency. As we began the interview process, on average, I estimate I understood roughly sixty percent of what the respondents said. For that reason, Pastory's translating was essential at the beginning of the project. As time progressed, however, my Swahili markedly improved. By the time we were about half way through the interview process, my facility with the language had increased to the point where I could conduct and understand the interviews with little or no assistance. However, I continued relying on Pastory as a way to cross check my understandings and as a cultural navigator. Through all of the interviews, he remained a vocal participant and would regularly interject if there was an avenue of inquiry he felt we should pursue or I was having difficulty asking a question about clearly. Consequently, nearly all of the interviews bear his imprint.

near Lake Eyasi, Pastory excelled in his studies. His education was supported by the NCAA Pastoralist's Council. He went on to study at Mweka and graduated at the top of his class with the most advanced degree offered. The respect this young, up and coming conservation professional commanded from both his peers and elders was immediately clear. His friendships with what seemed like nearly every conservation actor in the area was responsible for, I would wager, nearly three-quarters of the interviews we were able to conduct. By myself, as a white, foreign researcher, I had little social legitimacy in Tanzanian conservation circles. But with Pastory by my side, the same people were warm, friendly, and accommodating. For that I owe him my deepest gratitude.

The intersections of masculinity, heterosexuality, and professional training which Pastory possessed both facilitated the progress of my research, but also presented unique challenges at times. As intelligent as he is, Pastory is also the product of a patriarchal social environment. For instance, during a focus group of women HIV/AIDS NGO workers and health trainers, he was insistent that the reason why many men were attracted to and slept with multiple women was because of the "provocative clothing women choose to wear." At another time, after months and months of exploring how gender inequalities heighten some women's viral vulnerability, he still went on to tell me that between himself and his fiancé the absence of condom use was nonnegotiable and that as a woman she had no right to suggest he use a condom.[39] This tension, which he embodied, of a person who was simultaneously critically

[39] We are all, of course, bundles of contradictions, and I offer this example not as a criticism, intellectual or personal of Pastory, but rather to assert that, at times, his own reproduction of patriarchal socialization (as well as my own) influences both the substance and structure of our research endeavors.

examining patriarchal social structures while also reinscribing them, provided several unique insights into the complexities of lived experiences and understandings. During the course of this research the situated social standpoints of both Pastory and I, as well as the processes through which we engaged in impression management in the field, were factors which not only significantly impacted both the substance and structures of our investigations and findings. These factors also influenced our access to the people we could recruit as research participants and the demographic makeup of our final respondent pool. Part of the claim to engage in a feminist research project is to assert that who we are matters for what we can know and how we know it. But such a claim also brings with it profound epistemological commitments. Thus, it is to these epistemological frameworks which I now turn.

Feminist Standpoint and Science and Technology Studies Praxis

Skeptical of meta-narratives (Lyotard 1979), I chose to position this research within a dual feminist/STS epistemological framework. Feminist standpoint theorists have struggled to redefine understandings of what knowledge is and who can know, wresting control from traditionally male-dominated scientific endeavors.[40] Additionally, feminist epistemologies

[40] While the theoretical substance of standpoint theory is addressed in a later chapter, for now it is sufficient to characterize feminist standpoint theory in the following way: feminist standpoint theory asserts that for too long social knowledge has been produced by men, for men, in inherently masculine ways, marginalizing the knowledges of those who do not share this gender identity. In response, a number of feminist theorists have subsequently posited (a) there is no essentialized, universal knowledge or experience which can be adequately encompassed by any experience, (b) knowledge and experience rather are situated by one's social standpoint vis-à-vis systems of inequality and the move to critically and self-reflexively examine our group membership and relationship to systems of oppression, and (c) those who possess less structural privilege often possess greater insight into structural systems of oppression and inequality.

forcefully critique modernist constructs, including universal reason, objectivity, and the privileging of powerful male expert voices, arguing instead that particular (and different) kinds of knowledge are produced by particular people in particular social locations (Ramazanoglu and Holland 2002). In line with this general trajectory, which argues that knowledge is grounded in specific, gendered, social, and historical contexts, such theorists suggest several concrete epistemological critiques and positions, which informed this research: (a) challenging expert knowledge and the ways such knowledge reinforces hegemonic discourses related to various axes of oppression (Lykke 2010), (b) taking account of gendered lives and recognizing the need to examine "gendered power relations as a structural feature," shaping experience and knowledge (Holland et al. 1999:458), and (c) insisting on the partial and situated nature of both knowers and knowledge (Haraway 1988, 1993).

First, HIV/AIDS discourses and policies in sub-Saharan Africa have long been dominated by Western voices, prescriptions, and objectivist science at the expense of the ontological orientations and knowledge claims of people across Africa (e.g. Fassin 2007, Patton 1999a,b, Triechler 1999). Such thinking has often served to reinscribe existing hegemonic power relations and position the HIV/AIDS epidemic as a consequence of African cultural backwardness and/or hyper-sexuality (Schoepf 2004). My research contributes to a now extensive body of social science literature which pushes back against such reductionist thinking. Like other feminists, I begin from the premise that the world is unequal and hierarchical and that concepts like risk are constructed socially and are not naturally occurring phenomena (Leatherby 2003). Rather than asking what it was about individual psychologies or behavior that continues to propel the epidemic in northern Tanzania, I instead chose to focus my gaze on the

social structures and extra-personal dynamics which increase viral vulnerability for particular members of the conservation establishment and those with whom they interact. While I did have conversations with a handful of official expert voices, including TANAPA officials and medical doctors in the area who specialize in HIV/AIDS, in line with feminist prerogatives, I chose to focus my attention on how decidedly non-expert actors understood the epidemic, what they believe is at the root of the spread of the epidemic, and how they produce and challenge HIV/AIDS knowledge.

Second, and relatedly, a core tenet of feminism is the understanding that experience and knowledge are gendered (Reinharz 1992). Much of the history of scientific endeavors has erased the salience of gender, positing a single explicitly ungendered, yet nearly universally male-informed version of knowledge, which marginalizes those whose experiences and knowledge differ (Stanley and Wise 1990). Importantly, this universalizing gender privilege also flattens the diverse range of male voices and replaces it with a single authoritative voice of male power to which not all men subscribe. While the overwhelming majority of my respondents were men, this was not by choice. Rather, it reflected the patriarchal nature of wildlife conservation and tourism in northern Tanzania. In fact, I formally interviewed nearly all the women conservation professionals whom I encountered.[41] Additionally, in line with the feminist privileging of marginalized voices (Sprague 2005), I also sought out women who were involved with the conservation and tourism establishments through their roles as commercial sex workers, bar matrons, and hotel employees. Furthermore, following Layland (1990), I

[41] I was successful in this endeavor, with the sole exception of one national park scientist who seemed to have doubts about the legitimacy and outcomes of this research, which I would not quell.

remained true to feminist methodologies by paying attention to the gendered dimensions of structural forces which impacted women's lives and understandings. I also tried to develop non-essentializing explanatory models which situate women's (and men's) behavior within the constraining unequal structural forces women (and men) navigate every day.

While feminism emerged as a way to foreground the experiences, understandings, and knowledges held by women, its lens can also be productively used to examine masculinities and the way in which both understandings of self and larger patriarchal social structures shape men's behavior, often implicitly reinforcing male privilege. Indeed, a recent wave of feminist scholarship interrogates how masculinities inform understandings and performances of the self related to sexuality in the age of HIV/AIDS (e.g. Bowleg 2004, George 2006, Missildine et al. 2006, Phinney 2009). Following Davison (2007), I researched masculinities using a profeminist lens and worked to understand how masculinities inform understandings and behaviors related to sexuality, health, prestige, and social status. Furthermore, the ways in which patriarchal social structures constrain possibilities and experiences and produce vulnerability constituted constant themes throughout the research process. Rather than collapsing these diverse and sometimes conflicting understandings and experiences by forcing them into a single coherent narrative, I worked to privilege the messy nature of gendered realities and to reflect the complex and contradictory nature of experience and knowledge. All the while, I remained attentive to the power of gendered identities, knowledges, and social structures.

The last epistemological point made by feminists, which is fundamental to this research, is the assertion of situated knowledges. Feminist researchers position knowledge as multiple, subjective and partial (Brayton 1997). In contrast to the seemingly neutral and omniscient

"view from above," which Haraway (1988) terms the "god-trick," I worked to solicit understandings and information from a variety of participants, each of whom, in their own intersectional way, occupied a particular social standpoint. The idea that knowledge takes different forms and that those forms vary based on one's social location vis-à-vis systems of domination is the most fundamental premise on which this work is constructed. I strived to interpret the understandings and experiences of each participant within the social location of that participant and to build explanatory models which remained attentive to unequal power relations. While issues of race are not trivial in Tanzania, it was the identity categories of gender, class, and educational attainment which most often differentiated my respondents. While I remain ambivalent about the traditional feminist standpoint claim that marginalized groups *a priori* possess greater insight into systems of domination, I was attentive to the ways in which achieved and ascribed characteristics intersected to situate the knowledge and experiences of my research participants. Drawing on the notion of situated knowledges in another way, I also recognized my own situated positionality, a topic which I addressed above. However, this research is also situated within another, compatible epistemological framework: that of STS.

STS provides an epistemological lens through which to examine processes of knowledge production and understandings. It assumes that knowledges are constructed and contested, not simply discovered (Latour 1987, Law 2004, Mol 2002, Verran 1999). Like the feminists who critique positivist empiricism, STS practitioners seek to elucidate the ways in which the emergence of knowledge is culturally contingent, historically specific, and emerges out of relational networks. It led me to ask how, where, and among whom knowledge about HIV/AIDS

is produced. Originally, this project was intended to take place within two educational institutions: the Southern African Wildlife College (SAWC) and the College of African Wildlife Management (Mweka). After an initial period of fieldwork at SAWC, I traveled to Tanzania to begin working at Mweka. However, upon my arrival, and despite written letters of institutional support, I was obliquely told I would be unable to conduct research at the college, as a change in administration had taken place and the new administration did not look favorably upon Mweka being used as a research site. This perspective forced a major reconceptualization of the project, but one which ultimately was useful.

As STS scholars assert, knowledge emerges out of network interactions. Prior to incurring obstacles at Mweka, I was conceptualizing the college as an institutional setting in which such networks could be examined. However, this focus blinded me to the realization, later powerfully validated, that while an educational institution is certainly one kind of network out of which HIV/AIDS knowledge is (or can be) produced, it is not the only or necessarily most important of such networks. The college's withdrawal from the project led to a broadening of my research. I began to focus on wildlife conservation networks writ large—not only the college, but also conservation organizations and actors more generally, the NGOs and NGO workers contracted to provide HIV/AIDS prevention and awareness seminars, the media campaigns to which such actors are exposed, the conversations they have with colleagues in the field, the jokes and stories they share in the bar, and the personal experiences which help shape their understandings.

In short, what I initially perceived as a setback enabled me to more holistically embrace the STS assertion of relational, network-based knowledge production and to recognize that the

networks of everyday discourse are more powerful sources of knowledge production than the tightly constrained institutional framework of a wildlife college. Furthermore, while I did not enter the field with the anticipation of encountering widespread resistance to HIV/AIDS prevention and awareness efforts, I did encounter it. STS provided a framework through which to explore resistance in knowledge production processes and to examine how and why different knowledge production networks have varying degrees of persuasiveness.

I found that as I immersed myself more deeply into these networks of HIV/AIDS knowledge production and experienced the inevitable setbacks associated with field-based research, the object of my inquiry and the research questions I was asking changed. No longer were my interests in knowledge production institutionally bound. As a result of shifts in my focus, my research questions, introduced in the previous chapter, evolved and were informed by an ethnographic curiosity about what conservation professionals actually do and how those (inter)actions both inform and are informed by the current state of the HIV/AIDS epidemic in the area.

Methodological Limitations and Ethical Considerations

Three issues complicated this research project: my initial unfamiliarity with Kiswahili, living in Moshi, and access to parks and the people who work in them. Prior to hearing Kiswahili spoken in Tanzania during a pre-dissertation feasibility study in the summer of 2008, I had never heard the language spoken in natural social settings. My initial interest in Tanzania stemmed from the location of Mweka (in Moshi), which was to serve as one of my original field sites. However, during the time between my return to the United States and the beginning of

my fieldwork in Tanzania, I spent more than 100 hours utilizing computer-based language instruction to familiarize myself with the language on a rudimentary level.[42] Upon my arrival in Tanzania, I attended an eight-week Swahili intensive course at the Taaluma Institute at the University of Dar Es Salaam. By the conclusion of the course, my Kiswahili was approaching intermediate facility, but it did not take long in the field, interacting in the language nearly all day every day, to markedly improve my spoken and written fluency. Thus, within a few short months, I was able to overcome what was an initial limitation. Additionally, many of the conservation professionals and driver-guides with whom I interacted were proficient in English. Although I minimized the impact of this limitation over time, I mention it here because it did influence the early stages of this research.

Second, the most significant road block of this research, the loss of Mweka research clearance, resulted in two significant limitations. Based on the written support I had received for the project from Mweka, I mistakenly signed a lease and put a deposit down on a home in the Rau neighborhood of Moshi, less than ten miles from Mweka. However, as my research prospects at Mweka disappeared, I shifted my focus to the northern safari circuit, located to the west of Arusha, approximately two and a half hours from Moshi. It was there that I spent an average of five days a week for the remainder of my time in Tanzania. However, living in Moshi, or rather regularly visiting my home in Moshi, meant that on a regular basis, I removed myself from the field environment, a mental break Goffman (1989) argues against. In addition to added expense and time, traveling back and forth on a regular basis meant that there were

[42] I unsuccessfully attempted several times to locate a Kiswahili speaking native in Denver, or surrounding areas, to guide my initial language instruction.

numerous days and evenings when I was not saturated in the research environment. That time would have been greatly reduced had I lived full-time in Karatu.

Most important, the plan had been to conduct research *with* conservation professionals *at* Mweka. When this plan fell through, I needed to find another way to gain access to this pool of participants. The obvious choice was to apply for research clearance from the Tanzanian Wildlife Research Institute (TAWIRI), in addition to the Tanzanian Commission for Science and Technology, which did approve the project. TAWIRI clearance provides researcher with full research access to national parks and conservation spaces, but costs $1,200USD a year, a sum I could not afford. Thus, access to people working in the park *while* they were in the park was difficult. Therefore, the primary research environment for this project focused on areas adjacent to the parks, where employs regularly traveled, often lived, and relaxed and socialized. This is why the employment of a local, well-connected, insider research facilitator was essential. Other than signed organization vehicles, there was no clear way for me to differentiate who worked for conservation organizations and for which ones. However, Pastory knew. His personal familiarity, his insider status, allowed me to sidestep the otherwise severe obstacle this limitation would have presented. While we were able to speak with a large number of conservation professionals outside of the workplace, it was harder to do so with those at the top of the conservation hierarchies. Even when top administrators granted interviews, the situation was complicated by the imbalance of power and their desire to make both themselves and their organizations look good (Conti and O'Neil 2007, Hertz and Imber 2003, Nader 1972).

The final limitation of this research relates to the ethical considerations of the project. HIV/AIDS remains a stigmatized topic not often discussed by most Tanzanians. Ironically,

condom advertisements grace bar walls and billboards and there are frequent radio and TV programs addressing the epidemic. Nevertheless, everyday sexual practice still remains a domain about which most remain largely silent. Combined with the skepticism with which most conservation professionals, especially those in the employ of TANAPA, seemed to possess toward Western researchers, getting people to talk openly about their intimate thoughts and behaviors proved quite challenging at times. However, we were able to facilitate these discussions by becoming regular fixtures of the conservation scene, particularly in and around Karatu. Simply being seen talking to, walking with, and drinking and eating with well-respected conservation professionals conferred upon us a certain legitimacy and respectability in the eyes of others. Also, I am extroverted and worked hard to make personal connections with the majority of the people we spoke with in advance of formal interviews. Ironically, this was a situation in which obvious outsider status was occasionally advantageous. Because I assured each person the strictest confidentiality, many ultimately remarked that it was liberating to be able to speak openly about sexuality and HIV/AIDS, without fear of judgment and without fear that their words would come back to haunt them.

Confidentiality was the single most important ethical consideration of the research. During the course of each interview, there was a space in which I queried how well the participant felt his respective organization was responding to the epidemic. Many respondents expressed views, which were they to make their way to their superiors with names attached,

could have significant negative repercussions.[43] Therefore, both Pastory and I maintained the strictest confidentiality during our time in the field, never spoke about what one person had said to anyone else, and never addressed anyone by name in the data, other than for record keeping purposes. Additionally, I recognized that in asking people to describe their personal and professional experiences with HIV/AIDS, it was possible I may have asked a participant to discuss upsetting personal experiences or memories. To minimize this potential ethical consideration, I was sure to name this possibility during our initial discussions of informed consent.

The final limitation of this research is what is being done—or not being done—with the results. As I participated in at the Southern African Wildlife College, the original intent of this research was to use it to develop an HIV/AIDS curriculum at Mweka, which would have explicitly positioned me as a researcher who was delivering tangible benefits to the participants. However, as my research clearance at Mweka disappeared, I was told that Mweka was simply not interested in developing such a curriculum at that time and with that the reciprocity at the heart of this project disappeared. Despite this lack of interest from Mweka, these findings will be shared with relevant members of TANAPA, including research participants who asked to receive a copy of the final manuscript, and with the HIV/AIDS NGOs in the area that assisted in this research.

[43] To further minimize this possibility, all interview data was kept on my password protected personal laptop, with a backup copy on an encrypted external hard drive. At no point in the research process did anyone other than myself has access to the recorded interviews or my field jottings/notes.

Conclusion

This chapter provides a detailed look at my research methodology. Though increasingly less so following the reflexive turn in social science research, a great deal of scientific findings are, as Latour (1987) asserts, black boxed, minimizing the active negotiations and complications associated with the production of knowledge. This chapter consciously works against this trend and exposes exactly how this research was conducted, the challenges which had to be overcome, and the shifts in focus which occurred over the course of the work. So, I began by discussing exactly who participated in this research, looking at issues related to access, sampling procedures, the demographics of participants. I then detailed the use of interviews, ethnography, and extensive field jottings and daily field notes to show exactly how I aggregated and generated the body of evidence used in this thesis. After discussing the specific research methods employed, I demonstrated how my own research positionality, as well as that of my research assistant Pastory both facilitated our research and complicated matters at times. Our social standpoints impacted both the structure and substance of the research process and findings. Following this discussion of positionalities, I outlined the value of feminist and STS theories for my methodological approach. I concluded the chapter by addressing the most important obstacles faced in this work and provided a brief examination of ethical concerns which I worked to mitigate.

CHAPTER THREE

Historical Traces in the Present: Identity, Health Care, Conservation, Externality, and HIV/AIDS

Introduction

The HIV/AIDS phenomenon first appeared in the Kagera region of northwestern Tanzania relatively recently, in 1983. Yet, there are a handful of much longer-standing historical forces that help us understand the epidemic's current state and how it converges with the wildlife conservation establishment (e.g. Barnett and Whiteside 2002, Farmer 1999, O'Manique 2004, and Setel 1999). In the Tanzanian context, as Tanzanian professor and social critic Issa Shivji (2007:18) reminds us, "The present cannot be fully understood and grasped, not the future charted, without constantly keeping in the forefront of our minds the century-old processes cited by Walter Rodney as 'how Europe underdeveloped Africa.'" From the beginning of European interventions in East Africa, discursive notions of identity, the structurally based development of and access to biomedical health care, and the establishment and development of wildlife conservation have all been powerfully externally mediated. Recognizing the similarities between all three trajectories helps us to achieve a more accurate, nuanced understanding of the present state of HIV/AIDS in Tanzanian conservation spaces, including how people understand the drivers and impacts of the epidemic and how they respond to programs designed to mitigate transmission. Previous accounts have noted the importance of historical trajectories of political economy and governance for the emergence of the HIV/AIDS epidemic (Setel 1999) and the relationship between colonial governance regime, economic exploitation and the rise of wildlife conservation (see Garland 2006, Igoe 2004, Neumann

1998). I assert that examining the similarities in several historical trajectories provides an even more nuanced perspective from which to examine the convergence of both of these phenomena: wildlife conservation and the HIV epidemic. This chapter traces the relationships between strategies of governance, identity formation, the development of biomedical services in Tanzania, and the trajectory of wildlife conservation by addressing (a) colonial development and disciplinary policies during German and subsequent British colonial occupations,[44] (b) the transition to independence and Nyerere's implementation of *Ujamaa,* and (c) the ensuing transition to neoliberal governance. This chapter argues that at various points throughout the last one hundred and thirty years of Tanzanian history identity/subjectivity, health care accessibility/utilization, and conservation have all been profoundly shaped by external governance forces, often in ways not explicitly beneficial for Tanzanians' health and that this history remains relevant to HIV/AIDS in Tanzania today.

I begin the chapter by showing how the current tension between notions of collective and individual identities can be better understood by recognizing that relational identities have a very long-standing history in Tanzania, which precedes the colonial period. Then I demonstrate that there were existing schemas for dealing with medical issues in pre-colonial times, although they cannot be appropriately characterized as biomedical in nature. Next, I examine influences on identity formation, health care development and service provision, and

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[44] While Tanganyika was a German colony, it was technically never a British colony. Rather, Tanganyika fell under the purview of British control as the result of a League of Nations mandate at the end of World War I. However, for all intents and purposes, it functioned as a British colony, retaining the broad outlines of German governance and the continued extraction of resources, while minimizing British investment in the country.

the advent of wildlife conservation under both German and British colonial occupations.[45] From the advent of colonial intervention until the present, both the nature of biomedical health care systems and conservation in Tanzania has been and continues to be one of powerful external imposition, with only a thirteen- or fourteen-year period of internally directed development. Thus, in this chapter, I trace the rise of curative colonial and post-colonial biomedical health care systems, which, from their very arrival, have not been particularly good for the health of native Tanzanians and demonstrate the ways in which this progression is mirrored in the establishment of protected landscapes.

After exploring the impacts of colonialism on identity formation, health care systems, and conservation, I demonstrate how the shift to a post-colonial state and the implementation of a form of African socialism, under the moniker *Ujamaa*, which literally translates as ”familyhood” or “extended family,” brought with it a series of profound shifts for all three phenomena. Toward the end of the chapter, I turn my attention to the impacts of Tanzania’s transition to neoliberalism upon constructions of identity, health care service provision, and the expansion of conservation. The final section of the chapter addresses the ways in which the historical dynamics surrounding the construction of identity and the development of the biomedical health care service provision impact the contemporary HIV/AIDS epidemic in the country. While pre-colonial currents have had little lasting impact on the shape of HIV/AIDS, historical trends during colonialism, *Ujamaa*, and the neoliberal transition all have had profound implications for the state of HIV/AIDS in Tanzania today.

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[45] By identity formation I quite simply mean the ways in which people understand themselves, their place in their social worlds and their relationships to others.

Pre-colonial Identity and Health Care Systems[46]

There is a near total dearth of work that addresses identity in pre-colonial Tanzania, in part because the notion of identity, as such, is a fundamentally modernist construction of the West, predicated on Cartesian understandings of the subject and positing a unified, coherent, and stable core (Mansfield 2000). However, the social dynamics referenced with concepts like identity and ethnicity most certainly predated colonialism. There were groups of people who aggregated around the markers of relational identity, or what would come to be called tribes within the coming colonial discourse. While the idea of tribal identity would assume a particularly rigid form in the approaching colonial era, relational identity in pre-colonial Tanzania appear to have been far more fluid than the way we conceive of ethnicity today (Wijsen and Tanner 2002).[47] What little literature does exist posits that, in pre-colonial times, notions of kinship, lineage, and geography were more important than tribal loyalties for determining group membership: pre-colonial "communities had minimal tribal or ethnic identity … people identified themselves with their geographical location (e.g. from the hills, or the lowlands) rather than with any ethnic group" (Spalding 1996:89-90). These local markers of collective identity would later be mobilized by colonial powers to shape political and social control (Spear 2003). Thus, the roots of the current tensions between collective and individual ways of positioning the self, which powerfully attenuate understandings of and responses to

[46] This section does not address pre-colonial conservation because, as I defined the scope of my interest in conservation as one that centers a particular form of conservation emanating from EuroAmerica, it was not until the colonial periods that such dynamics came into play.

[47] Thank you also Dr. Mara Goldman who confirmed this prescient insight during a personal conversation in October 2011.

the HIV/AIDS epidemic, date back to the pre-colonial period. With the arrival of colonialism, this collectivity would be quickly misrecognized and then cemented as a kind of rigid tribal ethnic identity (Heilman and Kaiser 2002).

Although like with identity, little documentation of pre-colonial health care history exists, what is clear from the scant literature is that there was a public health infrastructure in Tanzania predating the colonial period, just not one aligned with Western biomedical practice (Turshen 1984, Waite 1987, 1993). Colonial records show that there were Tanzanian health practitioners utilizing powerful naturally occurring medicinal remedies to treat various diseases, ailments and injuries (D. Ferguson 1980). Colonial doctors and scientists went to great lengths to gather and test the chemical properties of traditionally utilized medicinal plants: "In Tanganyika, over one thousand traditional medicinal plants … [were] analyzed by British chemists …. This practice of tapping traditional medical knowledge in a subject territory, or colony, was a major method used by the European … nations to accumulate their wealth of pharmaceutical knowledge" (D. Ferguson 1980:311). Ferguson goes on to assert that these customary health services were deeply embedded in social relations and that utilization of these services both supported and reinforced notions of collectivity. Thus, somewhat efficacious health systems in East Africa predated the arrival of colonial powers and health indicators worsened, rather than improved, with the arrival of empire. This pushes back against the standard narrative of the civilizing and health-promoting nature of the colonial experience and establishes the distant foundations of a pattern of immiseration and ill health effects that accompany external intervention.

Colonial Identity, Health Systems, and the Rise of Conservation

Although the earliest roots of identity and health systems predate the advent of colonialism, the history of colonial power in mainland Tanzania had profound implications for contemporary Tanzanian identity, health systems, and facilitated the rise of wildlife conservation.[48] The arrival of the Germans in the 1880s, the German colonial period from 1884 until 1919, and then the subsequent British occupation from 1919 until independence in 1961 crystallized ethnic identification as the premier form of relational identity and laid the ground work for health care delivery infrastructure and conservation efforts in the country today.

The power of ideological white racial superiority in late nineteenth-century Europe, with its subcategories of various native ethnicities, was a powerful construct during the colonial period:

> During the colonial years, the primary identity-based dividing line was race. After World War I Britain maintained the rigid colonial racial [and ethnic] hierarchy established by Tanganyika's first colonial occupier, Germany. The British tied political and legal rights to the racial categories of European, Asian, Arab, and African. Residential segregation, established under German colonial rule, intensified under the British. Each group had its own schools, clubs, hospitals. (Heilman and Kaiser 2002:699)

Even today, ethnicity functions as a marker of inclusion and exclusion to differentiate within so-called racial categories. While the Europeans naively perceived all of black native Tanganyika to be made up of a single undifferentiated mass of "otherness" which had to be disciplined (Vaughn 1991), the reality was far more complicated along cultural, kinship, patronage, and shared linguistic and historical lines (Feierman 1990). In a nod to Said's conceptualization of

[48] This analysis is restricted to currents influencing identity formation, the development of health care systems, and wildlife conservation on the mainland. This is because a) this work is focused in northern mainland Tanzania and (b) the union of Tanganyika and Zanzibar did not occur until 1964, after the independence of Tanganyika.

orientalism, because all Europeans were part of seemingly natural national distinctions, this rubric of membership was believed to have a natural corollary in colonial settings and the only observable corollary to nationality was tribal membership/ethnicity. Indeed, Tanzanian historian Ilife (1979:323) contends that colonial authorities assumed "that every African belonged to a tribe, just as every European belonged to a nation." Thus, the political importance of ethnicity and tribal identity in Tanzania was made much more powerful by colonial government officials, who misrecognized fluid, yet distinct, social groups as bounded and separate entities.

Not coincidentally, such misrecognition served colonial political and economic goals. Neumann (1995b:150) writes, "In colonial Tanzania, the invention of tradition included the creation of African 'tribes,' the existence of which was crucial to the operation of the … colonial policy of indirect rule." Spear (2003:3-4) summarizes this line of thinking, arguing that "territorially defined political units supplanted earlier fluid social groups recruited on the basis of kinship and patronage and were given substance by standardized written languages, published ethnographies and collections of folklore … and the reorganization of local polities into ethnically based native authorities," thus pointing to the "social construction of tradition, law and ethnicity by colonial authorities to preserve tradition and social order while subordinating African societies to colonial rule."

This historical construction has had a long-standing impact. Neumann (1995b:149), quoting the Comaroffs, asserts "the European colonizers imposed a new set of values, ideals and beliefs upon the conquered peoples, thereby colonizing 'their consciousness with the axioms and aesthetics of an alien culture.' Europeans, in short, sought to impose on Africans 'a

particular way of seeing and being.'" The legacy of these colonial interventions into identity, fashioned as they were on top of pre-existing social groups, can be felt today. When traveling in Tanzania, it is rare to go a single day without either hearing someone self-identify with the ethnic group to which they belong or without hearing a comment about some alternative ethnic group. This ubiquity speaks to the enduring power of collective identification with ethnic group membership. Colonial powers mobilized ethnic identities to structure their rule and these ethnic identifications continue to be powerful for how Tanzanians experience their subjectivities today.[49]

In addition to significantly impacting the power of ethnic identification in Tanzania, the colonial period also brought with it the advent of biomedical health practices in the country. Although there were isolated Christian missions providing rudimentary health services from roughly 1850 onwards, it was the advent of German colonialism in Tanganyika in 1884 that precipitated the implementation of large-scale Western biomedical services (Turshen 1984). These facilities were government-run, urban-based, hospitals that focused on curative services and existed to serve the medical needs of the colonizers. This shift to colonial biomedical

[49] The cementing of tribal ethnic identities in colonial Tanzania provided a pathway through which colonial powers could assert authority over native Tanganyikans. Yet there remains an academic division about how powerful the invention of tradition vis-à-vis Tanzanian ethnicity was. Some authors have asserted the near totalizing power of the invention of tradition by British colonial powers (e.g. Hobsbawm and Ranger 1983, Ranger 1983, Wijsen and Tanner 2002). Others have pushed back against the conceptualization of the immense power of British colonial invention, arguing that such identities predate colonialism and that a far more complex array of factors must be included when examining ethnic identity (e.g. Feierman 1990, Jackson and Maddox 1993). My intention is not to wade into such a debate, but rather to acknowledge that while there were most definitely aggregations of people which would fit the modern day notion of ethnicity or tribe prior to colonial times, it is also the case that colonial powers organized indirect rule by imputing a new degree of importance to such pre-existing categories, misrecognized as natural and thus imputed with further classificatory power.

approaches to health is often discursively constructed as a necessary corrective for African backwardness, uncleanliness, and superstition (Vaughn 1991). As Turshen (1984:136) asserts, "The medical history of the country … assumes that the state of health in Tanzania was always precarious, at least until the arrival of Europeans at the end of the nineteenth century." There were, of course, various forms of pestilence that predated the arrival of Europeans, the first of whom were the Portuguese in the early 1500s (Koponen 1988). However, far from introducing a panacea responsible for the greatly improved health of native East Africans, the arrival of the colonial period, and the various bacteria that accompanied empire, actually precipitated many of the health and social ills of colonial and post-colonial Tanzania. D. Ferguson (1980) supports this assertion, citing the earliest available demographic statistics showing that the native population of Tanzania declined by more than half of a million people during Germany's 35-year colonial rule.

In a display of self-interest, colonial powers developed health systems that reproduced the biomedical practices of their homelands as a way to try to ensure the health of those Europeans living in the colony. This system, developed in the metropolis, was ill suited to addressing the health needs of African peoples in peripheral environments of underdeveloped rural poverty, such as colonial Tanzania (e.g. D. Ferguson 1980, Turshen 1977, 1984, Vaughn 1991). However, this is, in part, because the advent of such health care was never intended to serve the needs of native populations. Rather, the arrival of biomedical practices in Tanzania was about fostering the success of political domination and economic exploitation. Over the 35 years of German colonial occupation in Tanganyika, more than half of that period was focused on military exercises aimed at suppressing rebellion, most famously the Maji Maji rebellion

from 1905 to 1907, and ensuring the smooth extraction of colonial wealth, primarily in the form of natural resources and native agricultural labor. Thus, it is no surprise that during the colonial rule of Germany, twelve hospitals were built, staffed by Germans, whose main purpose was to perform surgical procedures for German soldiers and colonial administrators (D. Ferguson 1980). What little biomedical services were available to native peoples during this time period occurred almost entirely through Christian missionary services, which were as interested in religious conversion as health service provision. This selective biomedical geography had the additional characteristic of denying the vast majority of native populations access to such services, as most Tanzanians, then as now, live in rural areas. Furthermore, this system instituted racialized access to health care in colonial Tanganyika: the small number of private biomedical centers in colonial Tanganyika were located in urban environments, served the needs of white colonial officials, and, importantly, required cash payment.

Thus, for two reasons, it would be incorrect to suggest that there were no biomedical health services available to native peoples during the colonial period. First, there were missionary health services. Indeed, in 1958, three years prior to independence, 42% of all hospital beds and 81% of primary health care facilities in the country were owned by religious NGOs, which provided some level of health care service for native Tanzanians. However, utilization was limited, due to the oppressive messages of religious conversion that accompanied these services (Munishi 1995). Second, there were industry-related health services provided to native peoples as a way to attempt to maintain the health of the colonial labor supply. For instance, there were on-site biomedical health clinics at the colony's largest sisal plantations and mineral mines. Thus, the first attempts to provide biomedical treatment to

native Tanganyikans were part of a scheme to ensure continued colonial wealth accumulation, not to promote peoples' health for its own sake. Consequently, it should come as little surprise that the focus of such health services was entirely curative, with an emphasis on individual treatment of existing health issues, rather than on social prevention, a historical continuity that has persisted into the present (Turshen 1977). This ability to define illness and to control the only sanctioned interventions provided colonial powers with a potent form of social control, traces of which are visible today. The advent of biomedicine in Tanganyika cannot be divorced from the histories of exploitation and colonial primitive accumulation.

In a related vein, the dynamic of migration has a well-established relationship to HIV transmission in Tanzanian settings and can be traced to colonial interventions in Tanganyika. With the beginning of colonial efforts aimed at resource and wealth extraction came the introduction of poll and hut taxes for native peoples in 1887, which could only be paid in currency, not goods (Lugalla 1997). This policy was specifically designed to bring native Tanganyikans into the capitalist apparatus as laboring wage earners, since this was the primary way to garner the currency needed to pay such taxes. As noted above, the few biomedical services available to Tanganyikans also required cash payment. This newfound requirement for wages resulted in social disruptions, malnutrition, and migrations. So, while colonial histories assert that pre-colonial Tanganyika was wracked with disease and death and that may be true, colonial social, political, and economic institutions facilitated, indeed propelled, new kinds of social immiseration and health conditions dramatically worsened under German colonial occupation (Turshen 1977).

Unfortunately for the Tanganyikan people, the League of Nations decree in 1919, which transferred colonial control of the mainland from Germany to Britain, did little to improve health delivery systems or conditions for Tanganyikans. The new colonial power simply relied on a continuation of German urban, curative, hospital-based approaches to health and further reified a two-tiered delivery system, which (although in a different form) remains today. In 1926, a shift in colonial administration resulted in the establishment of numerous local dispensary and health clinics throughout the country. Tellingly, this new government health care hierarchy with local dispensaries at the district level, followed by intermediary provincial care for conditions that could not be addressed at the district level, with referral to central, urban hospitals (located at that time in Dar Es Salaam, Moshi, Arusha, Tanga, and Mwanza), is not far off from the health care hierarchy that exists in Tanzania today. Until independence in 1961, as much as 72% of the colonial health care budget was focused on curative biomedicine, which again was not even available to the vast majority of the Tanganyikan populace (Turshen 1977). From 1926 until 1961, there was very little development of the health care sector, in part, because the health care needs of the colonizers were being taken care of and the health of Tanganyikans was simply not of import, except when involving colonial industrial enterprises. Because health care services provided another mechanism for colonial social control, there was a deliberate policy of ensuring that biomedical health care expertise remained firmly in European hands. Upon the independence of Tanganyika in 1961, depending on which account one favors, there were either 14 or 17 fully qualified Tanganyikan medical doctors (D. Ferguson 1980 and Turshen 1977, respectively).

The mobilization of identity and biomedical health care to assert political and economic control over the colony were mirrored in the development of wildlife conservation in Tanzania, which also has its genesis in the colonial period. It was in 1892 that the Germans first established forest reserves in modern day Tanzania, which explicitly claimed dominion over timber and animals. Both timber and fauna were perceived as objects of value and colonial regulations restricted settlement, hunting, grazing, and burning for the first time (Neumann 1998). It was also at this time that the Eurocentric logic of conservation first emerged as the dominant framework through which to exercise power over landscapes, people, and flora and fauna (Garland 2006). However, much like health care, this seemingly positive development, conserving landscapes and animals, was motivated by more self-serving European desires, in this case, the desire to maintain a well-stocked sport hunting ground (Igoe 2004). Over the duration of the German occupation, stricter regulations were imposed over larger areas. By 1914, there were 231 forest reserves and 18 game reserves (Neumann 1998).

As with health care delivery, the British kept the German system of conservation. In part, this choice was informed by pressure exerted by the influential English organization, the Society for the Preservation of the Fauna of the Empire (SPFE), which was established by wealthy English aristocrats in 1903 (Igoe 2004). Taking note of the national park models of Yellowstone and Kruger national parks, this influential organization pushed for even further restrictions of native access to and use of prime spaces in Tanzania. The Serengeti was designated a game reserve in 1929 and a national park in 1940, despite fierce local resistance (Garland 2006, Neumann 1998). It was also during the colonial period that the first international conservation NGOs, so powerful in the conservation establishment today, were

formed. In 1948, members of the SPFE helped establish the International Union for the Conservation of Nature and Natural Resources (IUCN). Both AWF and the World Wildlife Fund (WWF) were formed in 1961, the year of Tanganyikan independence, as a part of a neocolonial strategy to ensure continued EuroAmerican involvement in the Tanzanian wildlife conservation establishment (Igoe 2004). By the end of colonial rule, seven national parks and two protected areas, including two of the three protected areas addressed in this dissertation—the Ngorongoro Conservation Area and Lake Manyara National Park—had been established, effectively expropriating large swaths of landscape and the flora and fauna from the people of Tanganyika. Thus, in the colonial periods, patterns of imposed identity, uneven health care development, and land enclosures all worked in the service of the maintenance of colonial power. German and British colonial occupations of the country both propelled a particular kind of ethnic-based relational identity and established a distinct form of biomedical health care, which privileged colonial, urban, and curative health. The traces of both of these distant historical trends can be found in the present HIV/AIDS epidemic, as I will demonstrate at the end of this chapter.

Ujamaa Identity, Health Systems, and Wildlife Conservation

The 1961 transition from colonial rule to independence brought with it profound shifts in the conceptualizations of relational identity, the development of and access to equitable health care services for the people of Tanganyika, and the expansion and further development of the country's wildlife conservation establishment. Despite achieving independence, major shifts regarding conceptualizations of relational identity and health care did not begin for an

additional six years. It was not until the Arusha Declaration, delivered on February 5, 1967, that meaningful policy shifts related to health care began. The Arusha Declaration was the foundational statement on the country's shift to *Ujamaa*, a self-styled version of African Socialism, based on principles of equality, equity, and collective self-reliance. This version of African Socialism explicitly sought to unite the variegated population of Tanzania under a broad policy framework, which included the absence of exploitation, worker control of the means of production, the existence of a socialist democracy, and self-reliance (Igoe 2004).[50]

It was around the time of the Arusha Declaration that the Nyerere government implemented policies to unite Tanzania's diverse tribal population under the rubric of nationalism. Tanzania's 1967 national census recorded more than 130 self-identified ethnic groups (Green 2009, Wangwe 2005). This puts Tanzania among the most ethnically diverse countries in the world (Miguel 2004, Tumwine 2009). Green (2009) contends that the uninterrupted political stability Tanzania has enjoyed since independence is due to the lack of any ethnic majority—Tanzania's largest ethnic minority, the Sukuma, make up 12% of the

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[50] Nyerere has been critiqued for the problematic dimensions of *Ujamaa*, most notably the villigization scheme, which aimed to voluntarily collectivize and concentrate agricultural production. When people did not comply with voluntary villigization, the national government resorted to military force to try and achieve its end, as witnessed in Operation Dodoma (Scott 1999). Others have found fault with the ideological premises, upon which the vision of *Ujamaa* was predicated (Ibhawoh and Dibua 2003) while, Spalding (1996) argues that Nyerere's vision was based on a romanticized and overly simplistic perspective on traditional African societies. Perhaps most importantly for this work, Caplan (2007) critiques the *Ujamaa* program as one that may have ideologically promoted equality vis-à-vis class standing, but was noticeably silent when it came to gender equality. While, in the end, it is true that government policies of *Ujamaa* did not succeed, many have argued that a powerful combination of external forces and internal crises was responsible for the Tanzanian turn away from *Ujamaa*, rather than some inherent contradiction or problem within the ideological position itself (e.g. Kaiser 1996, Lugalla 1997). Irrespective of what factors one attributes the fall of *Ujamaa* to, there is no arguing with the massive development of rural health care provision, designed to redress the lopsided concentration of health care services in urban areas, which followed the Arusha Declaration and transition to *Ujamaa*.

country's population—which might utilize the levers of government for self-aggrandizement.[51] But it would be a mistake to attribute political stability simply to the absence of an ethnic majority. The Nyerere government's explicit efforts to supplant divisiveness along racialized, ethnic, and class lines were successful in producing a competing nationalist vector of collective identity and I believe these efforts are also, at least in part, responsible for the remarkable political stability the country has experienced since 1961. However, the (re)surgence of collective ethnic identity after the fall of *Ujamaa* indicates that these identities were never dissolved, but rather were actively repressed by government efforts aimed at a collective national identity, which drove ethnic antagonisms underground (Aminzade 2003).

For all his high-minded rhetoric, Nyerere was well aware of these ethnic and racial divisions in Tanzania. *Tanzanian Affairs* (1997:16) reported that during a lecture at the London School of Economics "on nationalism and privatization in Tanzania, *Mwalimu* [a ubiquitous term of endearment for Nyerere which means teacher in Swahili] said that he had no choice at independence. If he had left the economy to the private sector it would have become entirely Asian and there would have been racial conflict." Indeed, this insight of Nyerere's, while cloaked in an ideological smokescreen of equality, proved prescient: "as the hegemony of *Ujamaa* was cracking, the social fault lines along religious, ethnic, and racial divides also began to surface" (Shivji 2006:9).

[51] This is not to suggest that political manipulation for personal gain is absent in Tanzania since quite the opposite is the case. However, unlike its neighbor Kenya, this corruption is not organized around ethnic divisions.

The political goal of creating a unified Tanzanian identity, which Nyerere believed was a requisite of the familyhood project of *Ujamaa,* was explicitly carried out both by the Tanganyika African National Union (TANU) and its successor *Chama Cha Mapinduzi* (CCM).[52] Nyerere's political party enjoyed one-party rule over the country for the entire duration of the *Ujamaa* experiment. A foundational dictum of TANU was "to fight tribalism and any other factor which would hinder the development of unity among Africans" (Abdulaziz 1980:139). Nyerere (1973:74) wrote, "Our country is one of those in Africa that is highly praised for its unity. We have no tribalism, no religious quarreling, no colour discrimination, and we oppose discrimination and oppression on grounds of tribe … wherever it exists."[53] Nyerere implemented a number of specific policies designed to foster a universal nationalist identity, arguably the most important of which was the formal institutionalization of Swahili as the official language of education and government.

The Tanzanian national language policy, which instituted the formal use of Swahili in schools and all government apparatuses, was meant to function in the service of the creation of an Andersonian imagined national community (Anderson 1982). To achieve this result, the policy did two things: first it demonstrated a move away from the language of the British colonizers, instead favoring the formalization of an African, Bantu-based language, which

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[52] *Chama Cha Mapinduzi*, the Revolutionary Political Party, emerged out of a union of the original party of the revolution in Tanganyika, Tanzanian African National Unity (TANU), and the revolutionary party of Zanzibar, the Afro-Shirazi Party (ASP).

[53] Hodgson (2011) and others have argued that this supposed vanishing of ethnic and tribal identities in the *Ujamaa* period masks a more complicated reality, one in which Maasai and other pastoralists were never subsumed within the nationalist identity and were consistently marginalized by government policies which specifically mobilized a Maasai outsider ethnicity.

meant that it could be spoken by the majority of the educated and uneducated alike. Second, it marginalized the ethnic languages that many Tanzanian people use to conduct the business of everyday life. The formalization of Swahili as the language of primary education, and thus indoctrination into a nationalist identity, was closely tied to post-independence educational reforms, most notably the 1967 Education for Self-Reliance policy (Vavrus 2002). As well, post-independence primary school curricula focused not on the diverse histories of groups in the country, but rather on shared Tanzanian history, culture, and values (Miguel 2004). Prewitt et al. assert that the transformation of educational systems in the service of nationalist ideologies was a powerful one in Tanzania: "Tanzania is unique among African nations in the extent to which it has self-consciously sought to adapt the educational system inherited at independence to the goals of the postcolonial leadership" (quoted in Miguel 2004:336). Furthermore, the government created the National Swahili Council to lobby for the adoption of Swahili as the de facto official language of the public sphere (Miguel 2004).

Additionally, Nyerere's government scrapped the British system of indirect tribal rule in favor of a new local governmental hierarchy: "In Tanzania, traditional rural authorities and customary tribal law inherited from the colonial period were completely dismantled upon independence, and this may have played a role in further diminishing the role of ethnicity in Tanzanian public life" (Miguel 2002:12). From the beginning, *Ujamaa* was fundamentally about improving living conditions for Tanzania's citizenry, the overwhelming majority of whom were rural and poor. Nyerere worked toward this goal through "the equitable regional distribution of public investment in education, health, and infrastructure … [as] a centerpiece of Tanzanian socialist policies" (Miguel 2004:337). This combination of the institutionalization of Swahili as a

national language, teaching a story of Tanzanianness that constructed a narrative of shared history, culture and values, the shift away from the colonial governmental hierarchy utilizing local tribal authority, and the equitable distribution of material resources throughout the country "contributed to the growing strength of a coherent and popular national identity that binds Tanzanians together across ethnic lines" (Miguel 2004:338).

The result of these efforts was a fairly durable ideological collective identity of nationalism among the majority of Tanzanians, particularly those who were educated and indoctrinated during socialist rule. While the power of collective ethnic identities in Tanzania remains persuasive, in comparison to self-described national identity "Tanzania has among the lowest degree of ethnic saliency" (Eifert et al. 2010:508). As a measure of the statistical salience of collective nationalist identification, utilizing 2008 Afrobarometer data to examine the comparative weight of ethnic versus nationalistic self-identification, Amanda Robinson, a statistician, was forced to exclude Tanzania from her analysis due to its outlier status: "Tanzania is an outlier, with 88% of respondents identifying as nationals" (2009:13). National identification is so much more prevalent in Tanzania, as opposed to its neighbor Kenya where ethnic identification is far more politically salient, precisely because of the enduring legacy of *Ujamaa*: "the potentially divisive array of social groups achieved a degree of cohesion that surpassed each and every neighboring country" (Kaiser 1996:231). For the purposes of this dissertation, it does not so much matter whether Tanzanians more strongly collectively indentify in ethnic or nationalistic ways as it does to realize that the legacies of colonialism instilled enduring and pervasive collective ethnic identification and that the subsequent policies of Nyerere under *Ujamaa* produced a second powerful collective identity category: nationhood.

In addition to a significant shift in understandings of relational identity formation, the *Ujamaa* period also involved a profound shift in health care development and delivery.

When Tanzania achieved independence on December 9, 1961, though there may have been a momentous and immediate shift in the levers of government and in the mindsets of people, the material infrastructure of the country was, for all intents and purposes, identical to that which existed a day or a week prior to this historic occasion. The health sector, a fundamental part of that infrastructure, was exactly as the British had left it, which included a heavy reliance on faith-based health care for native citizens. This use of FBOs to provide health care services meant that the British government was not expending revenue in the interest of Tanzanian health. Indeed, in 1964, 83.5% of all clinics were run by FBOs (Jennings 2008). Thus, it should come as no surprise that the health care system of the newly independent nation followed the British version in terms of organization, patterns of administration, and accessibility of service (Gish 1983, Turshen 1984). Although Nyerere, from the time of independence, utilized a rhetoric of profound change, "these political statements were not translated into actual strategies" until the articulation and enactment of *Ujamaa* in 1967 (Jonsson 1986:745). The largest shift in health care priorities came in 1972, when Nyerere explicitly set out to broaden rural health services. While it may have taken some time, the important point here is that Nyerere nationalized much of the health care service provision in the country.

Up to the point of independence, most health care was located in urban environments, thus making it unavailable to the vast majority of Tanzanian citizens. Much of the health care available in rural communities was facilitated by FBOs, was subpar due to logistical constraints,

and was accompanied by strong religious undertones (Munishi 1995). The shift to *Ujamaa* nationalized health included the nationalization of the two largest religious NGO hospitals in the country and represented a clear government attempt to concentrate health care service within the government (Sivalon 1995). Whatever one believes about the flawed nature and eventual failure of *Ujamaa*, from a health services perspective, this was the golden age of equitable health care distribution in Tanzania. Nyerere famously stated, "*Mtu ni afya*," or "a person is health," demonstrating his belief that health is the cornerstone of human existence (Kopoka 2000). I quote at length from Turshen (1984:193) to demonstrate the impacts of the expansion of medical services, which began in 1972:

> Since independence there has been a great increase in the health services available to Tanzanians: curative and preventative services are not only more numerous and more equitably distributed around the country, but also more accessible because government services are free and voluntary agencies' fees are kept low by arrangement with the government, which subsidizes some of them. In 1960 there were 425 physicians including 12 Tanzanians, 99 hospitals and 11,160 hospital beds, 22 rural health centers, and 990 dispensaries …; by 1977 there were 727 physicians including 400 Tanzanians, 141 hospitals and 19,970 beds, 161 rural health centers, and 2,088 dispensaries …. This expansion is astonishing, the more so as most of the effort in the rural areas to extend services not based on hospitals dates from 1972.

This expansion of free, readily available rural health care, achieved essentially in a five-year period, is remarkable. This speedy development of rural health care services was also designed to bolster citizen support for the new nation by providing social services which had not previously been available and by demonstrating that the government was genuinely serving the needs of its rural citizenry (A. Beck 1981). By 1982, 93% of the rural Tanzanian population lived within 10 km of a health facility and 72% lived with 5 km of a health facility, whereas in 1961, Dar Es Salaam, representing only 1% of the country's population, had more than 16% of the country's hospital beds, received 20% of the nation's health care budget, and more than 25% of

all medical salaries in the country were paid to specialists in Dar (Kopoka 2000). There was a significant increase in free rural mother and child health clinics (Caplan 2007). These burgeoning health care facilities targeting mothers were made possible, in part, by generous international aid, flowing mostly from Scandinavian countries. In the mid-1970s, these countries provided approximately 70% of the health development budget (Gish 1983). Furthermore, the rise of FBO-based health care was intensified by a 1977 law that prohibited private health care practice (Kumaranayake et al. 2000). Total government expenditures on health care increased from 31 million Tanzanian shillings (TSH, at the time approximately $4.3M) in the first five-year post-independence plan to 93 million TSH (approximately $13M at the time) in the second five-year plan, a 300% increase, the vast majority of which was devoted to expanding rural health care (Kopoka 2000).

All of this meant significantly improved health indicators for Tanzanians. While this did not alleviate every health issue facing the Tanzanian people, or create durable and lasting health care equity, life expectancy jumped from 37 years in 1967 to 51 years in 1978 (Jonsson 1986). However, while some level of care was available to nearly all Tanzanians, the quality of that care, the underavailability of medical equipment and medicines, and the dependence on foreign aid to fund such programs made the strides made under *Ujamaa* unsustainable. As the *Ujamaa* system began to falter in the early 1980s, religious NGOs were encouraged by the government to increase health care services, and the number of FBO clinics increased dramatically, a trend that would build momentum during the shift to neoliberalism in the country (Sivalon 1995). However, before addressing this shift in governance, from *Ujamaa* to

neoliberalism, I examine how the wildlife conservation establishment was impacted by the post-independence Nyerere government.

Following the standard global colonial trajectory, when the British pulled out of Tanganyika, having extracted all the wealth they could, they left the country underfunded, undereducated, and ill prepared for the complexities of administering a nation's governance. The Nyerere administration retained the colonial conservation structure because (a) of its economic revenue potential for the fledgling nation and (b) there was a group of foreign conservation professionals managing daily operations. In 1961, the year Tanzania gained its independence, Nyerere gave a speech in Arusha, called the Arusha Manifesto, not to be confused with the 1967 Arusha Declaration, in which he accepted trusteeship of the fledging nation's natural resources and heritage. He asked foreign powers for assistance in the transference of the specialized knowledge and training necessary for Tanzanians to govern protected areas adequately. Tellingly, this speech was not written by Nyerere himself, but by European members of either the WWF (Igoe 2004) or IUCN (Bonner 1993). Thus, this important speech "was a claim to sovereignty of sorts, but one tainted with the suggestion of contingency" (Garland 2006:123). The structure and organization of the fledgling country's conservation areas remained firmly in European hands.

However, there were not sufficient numbers of trained Tanzanians to accept the responsibilities of conservation management in ways the colonial conservation powers deemed appropriate. Consequently, European conservation actors and the IUCN and WWF established the College of African Wildlife Management (Mweka), designed to train/inculcate Africans in the Western logic of conservation. The resurgence of the Frankfurt Zoological Society (FZS), by

Bernard Grzimek, in the mid-1960s, promoted the reassertion of German influence in the Tanzanian conservation establishment for the first time since the end of Germany's colonial rule (Garland 2006). As well, colonial authority, now mobilized through newly formed conservation NGOs, drove the expansion of the national parks system, supplying funds for the establishment of Arusha National Park and providing money to purchase lands for the Tarangire National Park (Igoe 2004). Thus, throughout the post-colonial period, unlike with identity and the health care sector, within which the Nyerere government charted a Tanzania-centric course, the indelible mark of colonialism was, and remains, visible in the conservation establishment.

However, it would be a mistake to suggest that the post-independence government was merely a tool for the unbridled continuance of colonial domination. The Nyerere government also used conservation toward its own ends: the legitimation of the new national government and the forwarding of the *Ujamaa* goal of total self-reliance (Neumann 1998). Claiming sovereign authority over vast parcels of protected landscapes provided the Nyerere government with considerable spatial governmental legitimacy. The nationalization of business enterprises related to conservation generated significant capital flows, a trend which unfortunately would be reversed with the transition to neoliberalism.

Furthermore, the training of wildlife conservation professionals at Mweka also provided a vehicle to replace European game wardens and other conservation officials with Tanzanians, furthering the *Ujamaa* tenet of self-reliance. Still, Mweka filled this role through a decidedly neocolonial framework. The first principal of the school and its first two lecturers were white, colonial game wardens, and there was no significant African presence at the college until the

1970s. The first governing body of Mweka included European NGO representatives, and Mweka's designation as a regional, not national, training site ensured it remained somewhat outside the realm of explicit government control (Garland 2006). Thus, patterns of external influence over domestic matters, the foundation of colonial power, remained firmly in place in the conservation establishment through much of the *Ujamaa* period, despite increasing Tanzanian control.

As the *Ujamaa* efforts to instill and expand a persuasive national identity, expand health care services in rural Tanzania, and make wildlife conservation work for the Tanzanian populace were reaching their zenith in the late 1970s, the cracks in the Tanzanian experiment in African Socialism's edifice were already appearing. By the early 1980s the economy was in free fall. In part, this collapse was a product of Nyerere's government's prioritization of social service provision, which was expanding over economic production, which was contracting (Lugalla 1997, Turshen 1984). While internal policy miscalculations and poor prioritization accelerated the deterioration of the Tanzanian economy and led to substantial macroeconomic imbalances, a number of external factors also played pivotal roles in the collapse of *Ujamaa*, including a severe drought, a costly war with Uganda, the oil crises of the decade, and the collapse in international prices of export-oriented Tanzanian agricultural products (Kaiser 1996, Lugalla 1997, Meena 1991, Meertens 2000). However, the international financial institutions repeatedly asserted that these external factors were not at the root of the imbalance of payments and that macroeconomic instabilities had their roots in internal mismanagement (Kanji et al. 1991). This fallacy of attribution led to policies designed to redress such internal mismanagement, but in the end did so largely at the expense of the poor, marginalized, and

vulnerable (Vavrus 2005). The full-fledged shift from *Ujamaa* to neoliberalism in Tanzania, in 1985, would bring with it profound changes in the conceptualization of identity, the development and delivery of health care, the resurgence of the relevance of external influence upon the wildlife conservation establishment.

The Neoliberal Governance Transition, Identity, Health Care Systems, and Conservation

The introduction of neoliberal ideologies and policies, marked by the transference of presidential powers from Nyerere to Mwinyi in 1985 and carrying right through the 1990s into the present, profoundly shifted understandings of identity, structures of public health service provision, and the control of wildlife conservation. These phenomena transformed from being informed and reinforcing Nyerere's African Socialism to being informed by a neoliberal project to reshape governance though (a) a shift in notions of subjectivity, from relational to individual, (b) the dismantling of the *Ujamaa* social service sector, including the national health care project, and (c) the reassertion of tremendous international influence within wildlife conservation. This important shift in governmentality had three relevant primary impacts. First, the mobilization of a neoliberal identity framework in Tanzania resulted in a powerful mismatch between how most Tanzanians and the neoliberal health apparatus conceptualize identity. Second, the neoliberalization of Tanzania has involved a hollowing out or roll-back of the state, resulting in underfunded and diminished health care service provision. Finally, this service provision vacuum has largely been filled by NGOs in place of state services. Most NGOs, despite their powerful claims to locality, are situated within transnational topographies of power by virtue of external funding flows (J. Ferguson 2006). They often provide services predicated on

the neoliberal subject, thereby implicitly marginalizing the powerful impacts of social and structural phenomena on states of health.

Neoliberalism possesses economic, political, social, and ideological components. Recognizing the complexity of actually existing neoliberalisms which have been discussed by many authors (e.g. Larner 2000, Peck and Tickell 2002), this chapter follows McCarthy and Prudham (2004:276), positioning neoliberalism as "standing for a complex assemblage of ideological commitments, discursive representations, and institutional practices, all propagated by highly specific class alliances and organized at multiple geographical scales." The economic vein, which has significantly impacted both health care services and wildlife conservation in Tanzania, is composed of policy prescriptions related to free market governance, trade liberalization, privatization, and the presumed efficiency of private enterprise, as well as the processes though which those policies are implemented. Yet, neoliberalism is also fundamentally an ideological project grounded in particular liberal beliefs about the subject. Commenting on the Tanzanian case, Shivji (2007:19) writes, "The neoliberal package is and has been more an ideological offensive than simply an economic programme." This ideological program has profound implications for identity because the "less visible … aspects of … [neoliberalism] ultimately have the potential to shape our social relations in profoundly material ways" (Bezner Kerr and Mkandawire 2010:2).

Neoliberalism precipitated a repositioning of identity in fundamentally individualistic terms, a philosophical shift from the earlier foci on collective identities. Neoliberalism rests on the assumption that actors are autonomous, responsible (Kelly 2001), empowered (Dilger in press), economically motivated, rational, self-interested (Bezner Kerr and Mkandawire 2010),

and "responsible for their own fates through the exercise of choice" (Rose 2000:337). Holding the individual person self-responsible in social spheres, including health care, cannot be divorced from the *homo economicus*, which is at the heart of the neoliberal project:

> The key feature of the neo-liberal rationality is the congruence it endeavors to achieve between a responsible and moral individual and an economic-rational actor. As the choice of options for action is, or so the neo-liberal notion of rationality would have it, the expression of free will on the basis of a self-determined decision, the consequences of the action are borne by the subject alone, who is also solely responsible for them. This strategy can be deployed in all sorts of areas and leads to areas of social responsibility becoming a matter of personal provisions. (Lemke 2001:201)

This conceptualization is at odds with the collectively based notions of identity so powerful in Tanzania during the pre-colonial, colonial, and *Ujamaa* periods. However, although there is a current of change, at this point most people in Tanzania do not conceptualize their subjectivities through the neoliberal rubric presented above.[54] Thus, in Tanzania, the neoliberal framing of the actor is problematic, because "for a great many people, the neoliberal privileging of rationality, autonomy, choice, and responsibility does not reflect their understandings of self" (Newman et al. 2007:573). Implementing health care systems predicated on a notion of identity which does not mesh with that embodied by most Tanzanians has resulted in a worsening of health indicators and a decrease in service utilization among many Tanzanians.

During *Ujamaa*, increased expenditures improved access to health care, but national revenues were decreasing, creating an imbalance of payments. In response and in an attempt to forgo talks with the IMF and World Bank, the Tanzanian government implemented two

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[54] Throughout the course of this research I found that the power of relational identities is, in some ways, decreasing among younger people, who have been educated and socialized in more neoliberal environments than their predecessors. While most older Tanzanians, above roughly 40 years of age, powerfully identified with the legacies of *Ujamaa* and relationality, their younger counterparts appear to much more firmly have one foot in each conceptualization of identity.

economic adjustment programs: the National Economic Survival Program in 1981-1982 and the Structural Adjustment Program (SAP) from 1983 to 1985. However, these programs did little to reverse the declining standard of living and lacked the deep shifts being sought by the international financial institutions.[55] Furthermore, they did not address the neoliberal conviction that the source of underdevelopment in Africa was the state (Chachage and Mbilinyi 2003, Shivji 2007).

Unimpressed with Tanzania's attempts at economic restructuring, IFIs demanded a number of economic and political conditionalities, rejected by Nyerere but summarily instituted by his successor, President Mwinyi, in 1985 (Hyden and Karlstrom 1993). These conditionalities required the deregulation of markets, trade liberalization, the privatization of the nearly 400 *Ujamaa* para-statal organizations (including those related to health care), currency devaluation, and reductions in social spending programs (Meena 1991).[56] When Mwinyi instituted these externally generated policy prescriptions, there were positive macroeconomic results, but significant negative consequences for most Tanzanians.

Since 1986, Tanzania has continued the trend of liberalization, deregulation, and privatization. These reforms entered a second stage during the 1990s, with the 1991 and 1994

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[55] Inflation rates of between 30 and 40%, which accompanied this economic stagnation, were coupled with increasing scarcity, a tenfold jump in consumer goods pricing, and a 65% decline in real wages from 1979 to 1984 (Lugalla 1997). Between 1981 and 1985, per capita income fell 2.4% (Pinkney 2009). These economic shifts resulted in a significant decrease in living standards for Tanzanians. Falling wages and living standards, compounded by the retrenchment of more than 50,000 civil servants, set the stage for external IFI-led structural adjustment, such as 1986's Economic Recovery Plan and 1989's Economic and Social Action Program.

[56] As Harvey (2005) elaborates at length, this combination of macroeconomic policies is the trademark neoliberal economic cocktail imposed on nearly every country which has accepted SAPs in exchange for financial assistance from international financial institutions.

Enhanced Structural Adjustment Facility agreements. After Mwinyi's succession by President Benjamin Mkapa in 1995, neoliberal reforms continued via the Poverty Reduction and Growth Facility arrangement in the late 1990s.[57] However, this old strategy, mobilized under a new name, maintained the core economic strategies of SAPs, just under a veneer of humanitarian compassion (Bond and Dor 2003). Indeed, IFIs continue to be castigated for their prioritization of debt servicing over social service provision: "Tanzania's President Mkapa … encapsulated the feeling of the day … calling it a 'scandal that we are forced to choose between basic health and education for our people and repaying historical debt'" (Moyo 2009). These new Poverty Reduction Strategies have not resulted in a marked decline in levels of poverty or visible gains in quality of life in Tanzania. In fact, real incomes in Tanzania dropped more than 80% after the institution on the first SAPs in the mid-1980s, per capita income is only 6% higher than in 1967 (Tripp 1997) and income inequality has increased (Kamat 2008).

Several factors contributed to the intersections of structural adjustment, more precarious health, and compromised health care: decreasing public expenditures, the reinstatement of a two-tiered apparatus reminiscent of colonial times, cost-sharing initiatives, and the increasing saturation of the field by NGOs. First, government health care expenditures steadily declined after the mid-1980s and have since stagnated, dropping from 7.2% in 1977/78 to 4.9% in 1990/91 (Rusimbi 2003). WHO data (2011) indicate that this number remained

[57] As a result of the worsening living conditions in countries complying with SAPs around the globe, the IMF and World Bank came under increasing pressure during the 1990s. In an attempt to deflect this mounting criticism, IFIs agreed to a degree of debt relief for impoverished nations, including Tanzania, and reframed structural adjustment under the name Poverty Reduction Strategy (PRS), the first of which was implemented in Tanzania in 2000.

unchanged, 4.9% in 2002 and had only increased to 5.1% in 2009, significantly below the regional average. This reduction in per capita spending by one-third led to a scarcity of financial resources in the public health care sector resulting in a lack of new facilities, equipment, health personnel, and essential drugs (Dilger in press, Lugalla 1995). As Kamat (2008:375) asserts,

> Privatization [and reductions in social spending] within the health sector such as those witnessed in Tanzania were not meant to be implemented alone but, rather, couched within a range of safety nets, including third-party insurance schemes, sickness funds and social security systems …. Since these systems are currently not in place in Tanzania, the poor and marginalized people … have little choice but to bemoan the ongoing changes in their political, economic, and social lives …. For the majority … the reforms introduced by the government during the post-socialist period have not ameliorated their economic and social well-being.

Thus, over the past two decades structural adjustment has negatively impacted public health delivery: less than 50% of the Tanzanian population have meaningful access to quality health care, not because such services do not exist, but because they cannot afford them (Turshen 1999). Additionally, reductions in health care spending have resulted in "a replacement of pro-active health policies by health sector measures which accommodate the interests of SAPs" (Lugalla 1995:45).

The second problem is that the structural adjustment pursued over the past 25 years has resulted in the (re)emergence of a two-tiered health care sector. In the past fifty years, health care in Tanzania went from an elusive colonial service accessible to very few Tanzanians, to a basic human right under *Ujamaa,* to a commodity available only to those who can pay. For individuals who have access to capital, "this change has led to the founding of private hospitals, well-stocked pharmacies, and clinics that provide high-quality care for those that can afford it" (Vavrus 2005:184). As Rusimbi (2003:106) corroborates, "Surveys in Dar Es Salaam have shown that those in professional and higher-paid jobs now have access to high-quality private care. In

contrast, the unemployed, those in the informal sector, and farmers, the majority of whom are women, get stuck with deteriorating public health care." Thus, while the availability of quality care, effective medicines, and trained biomedical staff have all proliferated, this is of little use to most Tanzanians. If one cannot afford to pay, one has little choice but to endure long wait times to see overwhelmed practitioners in understaffed facilities often missing requisite supplies. Some of my informants, for example, were aware of the poor-quality public care available to them and so chose not to pursue any care or to travel to Arusha, where they can pay, out of pocket, for high-quality private care, corroborating Kamat's (2008) findings among residents of Dar Es Salaam. Those whose health care has been most negatively impacted by the macroeconomic policies of the international financial institutions are exactly those who are most vulnerable to HIV: the poor, women, and children (Turshen 1999).

Health vulnerability is often understood as inversely correlated with economic standing.[58] There are more women than men among the 33.6% of Tanzanians living below the national poverty line and declines in health indicators among women in Tanzania have been particularly stark (Lugalla 1995). Obstacles to women's health seeking have been created by SAPS in at least four important ways. First, currency devaluation and the removal of food subsidies reduces access to basic goods required for nutritional well-being and less healthy people are more susceptible to the health complications associated with HIV. Second,

[58] My data suggest that this is not entirely the case: those with money are also vulnerable to HIV reception or transmission. This merely points to the complex, simultaneous occurrence of several trends: those in dire poverty are more likely to pursue potentially risky behaviors as a livelihood strategy (e.g., prostitution), while those with disposable income may use that income to engage in socially sanctioned, and sometimes even rewarded, behavior (e.g., philandering) which also increases vulnerability.

privatization and the retrenchment of large numbers of public sector employees has led to a decrease in real wages and employment in Tanzania, which may push women into commercial or transactional sex work as a survival strategy. Third, trade liberalization and mass public sector retrenchment increase migration, which is a dynamic directly linked to increased viral vulnerability both for those who migrate and those who remain behind (Hirsch et al. 2010). Finally, the concomitant introduction of educational user fees has reduced the number of girls and young women in formal education, thus further reducing women's potential earning power (De Vogli and Birbeck 2005). Since national prevalence statistics indicate that there are more women than men who are HIV positive, such obstacles have special consequences for HIV/AIDS.

The third major factor that ties structural adjustment policies to poor health care indicators is the introduction of user fees as a form of cost sharing. Poor and vulnerable groups cannot afford even modest fees. As Evans (2002:52) writes, "the introduction of cost-sharing measures for health … has had a devastating effect on social services in Tanzania …. The Tanzanian public health sector has also become conspicuously underfunded in absolute terms, spending about $3.50 per capita per annum, well below what is normally acceptable."[59] Although *Ujamaa* also failed to provide adequate services, what health care was available was free and this resulted in high rates of utilization. User-fees for health care, based in a capitalist consumer value logic anathema to the socialist ideologies of *Ujamaa*, may on the surface seem like a way to reduce frivolous use and incentivize appropriate use, or so neoliberal economists would have us believe. However, high levels of general impoverishment make such a hurdle

[59] Tanzania's public health expenditure of $3.50 per capita per annum means that the country is spending more than 3 times more on external debt servicing than health care (Ezenou 2008).

highly problematic in Tanzania, where, according to the United Nations Development Programme (2011),

> despite the high rate of economic growth over the years, averaging 7.2 per cent per annum, poverty dropped only by two percentage points during 2001-2007. The level of poverty remained high at 33.6 per cent and the absolute number of the poor has increased by 1.3 million during the same period as per the Household Budget Survey 2007. High growth has not translated into a corresponding reduction in poverty as the economic growth has not been pro-poor.

Health care user fees, most often between 1,500 TSH and 5,000 TSH (roughly 87 US cents to 3USD), may seem insignificant, but given poverty rates in the country, they are a serious barrier to health care (Kamat 2008).

Many medical services are available free of charge to HIV+ Tanzanians, but their utilization remains low. Several health care and HIV/AIDS NGO workers told me that they believed this was due, in part, to the implementation of cost-sharing measures. Unaware of their seropositivity, many people rightly assume that medical tests or services will be more costly than they can afford. Since they don't know they are seropositive, and thus eligible for free public health care, they delay treatment, which results in further deteriorating health. By the time these individuals become sick enough for long enough to decide to seek medical attention, white blood cell CD4 cell counts have often dropped to a point where little can be done.

The final important way that neoliberalism re-shaped health care in Tanzania was its hollowing out of the state, a hallmark of neoliberal structural adjustment. Retraction of public services has fueled the rise of health care NGOs in the country.[60] Under *Ujamaa*, government

[60] This section, and this research more generally, are not intended as a wholesale critique of NGOs, which suggests that such organizations have failed or that the actors which work for them are only

health service provision was largely funded by external donors—notably Scandinavian governments that supported *Ujamaa*—but the Tanzanian government administered the vast majority of services and remained firmly in control of how such funds were used.[61] With the imposition of neoliberal policies and debt servicing by the IFIs, Tanzania was forced to reduce government health care expenditures significantly. This retrenchment resulted in a health care services vacuum, which was filled by the return of FBOs, the creation of national and community-based NGOs, and the arrival of various international health NGOs (Pinkney 2009).

Under the umbrella of empowering multi-stakeholder participation and the neoliberal ideological position that governments are inherently inefficient and wasteful, the IFIs championed the filling of this vacuum by NGOs and FBOs, which, in East Africa, receive between 80% and 86% of their funding from external donors (Barr et al. 2005). Thus, NGOs are not tied to government funding and operate largely outside government control.[62] Indeed, these NGOs

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interested in self-aggrandizement. During the course of this research, I was rather struck by the genuine motivations and sincere efforts of most – though not all – of the NGO staff with whom I spoke. This section is rather designed to position the explosion of NGO services in Tanzania as an outcome of larger historical and structural processes, to demonstrate how their increased relevance can itself be seen as part of a larger neoliberal project, and to suggest that their importance in health care service provision does not meet all the needs of the Tanzanian citizenry and, in some cases, is actually counter-productive to them.

[61] This points to an interesting paradox. It is true that the *Ujamaa* government was spending significant amounts of its own money on rural health care development, in conjunction with external partners. IFIs cited such expenditures as a major cause of the country's economic imbalance, ignoring the important role of debt servicing, which far outweighed health care expenditures. This selective blindness provided the rationale for the IFI insistence on reductions in social service provision, while they remained silent about massive government expenditures related to debt servicing. This resulted in the neocolonial imposition of external priorities as a condition for the loans needed to keep Tanzania solvent.

[62] Therefore, the rise in NGOs, which directly results from the international imposition of neoliberal economic and social policies can be seen as a neocolonial reassertion of external influence in Tanzania, since they function almost entirely outside of the purview of the state.

are fundamentally positioned as the "third sector," distinct from the government and private sectors. This situating of NGOs as the third sector is designed to ideologically position NGOs as closer to communities and more efficient at delivering the necessary services (Seckinelgin 2006, Shivji 2007) , though the veracity of both of these assertions remains widely debated (Michael 2004). This shift, from government-run public health to NGO and FBO health service provision has caused dramatic changes in the face of the institutional health provision model in East Africa (Hardon and Dilger 2011). The latest estimate I could find indicates that there are now more than 8,000 NGOs working in Tanzania (Kelsall 2001), providing more than 40% of all health care services (Lugalla 1995). Much of the support that facilitates NGO and FBO control over health services provision is provided by USAID, which gave $395 million in 2009 and an estimated $434 million to health-related programs in the country in 2010 (USAID 2010). In addition to health care services, NGOs and FBOs are now largely responsible for HIV/AIDS prevention and awareness trainings, the vast majority of which are predicated on the universality of the neoliberal subject.

The explosion of NGO-based HIV/AIDS service provision can be read, in one way, as the newest form of external neocolonial control or what Seckinelgin (2006) terms "governance from afar." Massive infusions of funding, primarily from PEPFAR and the Global Fund, provided more than $313 million in HIV/AIDS funding to Tanzania in 2008 (PEPFAR 2008). Under the umbrella of USAID, NGOs and FBOs are receiving significant sums of USAID HIV/AIDS-specific funding: in 2009, USAID contributed $329 million, with an estimated $336 million for fiscal year

2010.[63] This extra-statal HIV/AIDS governance regime has now replaced many functions of the state (Seckinelgin 2005), operates parallel to the state (Ferguson and Gupta 2002), and even operates within government-run health care spaces (Sullivan 2011).

Almost exclusively externally funded, these NGOs mobilize neoliberal ideologies of individualism and responsibility and profoundly shape health care messages and service provision related to HIV/AIDS (e.g. Booker 2009, Dilger 2009b). As Shivji (2007:13) reminds us, "NGO discourse … is predicated on the philosophical and political premises of the neoliberal … paradigm." This rearticulation of global health governance regimes, away from state actors and toward non-governmental and international control, has resulted in tensions across scales because this shift is infused with neoliberal ideologies and discourses of individuality, autonomy, and efficiency, and human rights (e.g. Bezner Kerr and Mkandawire 2010, Higgins 2010a,b). After all, HIV/AIDS-related health and education NGOs are responsible primarily to their international donors (such as USAID), not the Tanzanian people. While few would argue against more efficient service provision, which foregrounds individual human rights, the instantiation of external ideological positions cannot be overlooked and empirical research questions the degree to which such shifts in governance have actually resulted in improved service delivery or have improved the lived experiences of Tanzanians (e.g. Lynge 2009).

[63] This exposes one of the great ironies of the neoliberal ideologies of service provision vis-à-vis the state. In the name of greater efficacy, the Tanzanian government was divested of control over health care. Health care service was then mobilized through the 'third sector' of NGOs, but conveniently few point out that this supposed extra-governmental service provision apparatus is profoundly dependent on funding which comes from the state, albeit the American, not Tanzanian state. Neoliberalism has, thus, not reduced state control over health care, it has simply shifted which state is in control.

It is within the neoliberal period that we most clearly see the intersections of identity and health care: how people understand themselves matters. Conceptualizations of the neoliberal subject fail to account for the constraining power of social structural forces, including income inequality and poverty, gender inequalities, and social geographies of mobility and isolation. These all matter when individuals make decisions about their health: "It [neoliberalism] does not account for the much more complex motivators and vulnerabilities that characterize real human interactions and it denies the vulnerabilities, emotions, and tough dilemmas faced by people in their everyday lives" (Adam 2005:344). Most Tanzanians understand themselves within long-standing matrices of relational identity. Yet they are expected, within the constraints of the neoliberal system, to view themselves quite differently, that is, as autonomous individuals.

As examined in the Introduction, declines in public health indicators, such as increased HIV seroprevalence, are ideologically positioned as the result of poor individual decision making rather than a complex interplay of factors that include extra-personal structural forces. At the same time, in the name of improved efficiency and efficacy, the very nature of health care services has dramatically shifted away from Tanzanian state control and toward a transnational governance regime. The increased immiseration of the majority of Tanzanians, situated within the neoliberal reforms of presidents Mwinyi, Mkapa, and Kikwete, has resulted in a catch-22 situation: people are now supposed to make self-interested, rational decisions to maximize their health, yet are not empowered with the resources to do so. Despite these short comings, the ideology of the neoliberal subject remains firmly entrenched in government health policies and NGO approaches, both of which have been fundamentally shaped by transnational forces.

In conclusion, post-independence Tanzania began with an underfunded health care system, especially vis-à-vis the rural poor, especially women and children. The government worked hard to redress this disparity, but did so in ways that undermined long-term macroeconomic stability. They were then, with the shift to neoliberalism imposed by the IFIs, given no choice but to reverse those gains in the name of addressing macroeconomic stability. This meant taking a health care system that was already barely meeting the needs of its most vulnerable people, reducing sectoral expenditures, and then asking people living, in many cases, on less than $1 a day, to pay health care fees. As even economists associated with the World Bank were later forced to concede (Cuddington 1993), the end result was to reduce health care utilization. This relationship between increasing costs and declining health care is particularly stark in rural Tanzania, as demonstrated by another group of economists, Sahn et al. (2003).

While policies such as privatization and cost-sharing designed to reduce government spending on social services make sense on paper, in practice they make health care access, for those without disposable income, more precarious and exacerbate internal variability among different strata of the population (Kamat 2008). This declining state of health care is a direct result of international dictates, is situated within a historical dynamic of urban-based curative services, and has resulted in an explosion of private health care facilities available only to those who can afford them. Benson (2001:1914) sums up the current situation of health care inequity in Tanzania by quoting Hart's "Inverse Care Law," which states that "the best health care facilities almost always end up in places with the least need for these facilities."

The rollback of the Tanzanian state and rollout of NGO services, which characterized the neoliberal transition's impact on health care service provision, also significantly impacted the conservation establishment via an externally oriented recommodification of the commons (Igoe and Brockington 2007). This shift occurred in conjunction with larger programs of neoliberal restructuring and, like other social arenas, resulted in a significant increase in NGO involvement (Holmes 2011, West et al. 2006) as non-state actors exploit governance gaps (Buscher 2011). This NGO explosion in conservation was aided by structural adjustment, which required the privatization of much of the nationally controlled conservation establishment. In addition, the concomitant liberalization of trade facilitated direct foreign investment in conservation. The Tanzania Tourist Corporation, the primary para-statal organization earning rents from conservation areas and concessions under the Nyerere government, was dissolved and replaced with the nominally important Tanzania Tourist Board. Financial control over many conservation rents and concessions was handed over to externally controlled corporations. Indeed, the majority of accommodation and food service provision located inside Tanzanian conservation spaces is now administered by the private sector, which means that the majority of profit from such enterprises does not directly benefit the government of Tanzania or the Tanzanian people. Even more of an infringement upon national control over protected areas, Ngrumeti Reserves Inc. now manages two state-sponsored game reserves in the country, much more fundamentally ensconcing private enterprise in the daily operation of protected areas (Igoe and Brockington 2007). In return, these Tanzanian government concessions have been rewarded with over $130 million in conservation specific loans and $27 million in conservation-specific grants from the World Bank (Levine 2007).

The neoliberalization of conservation in Tanzania does not only allow rents and concessions for private companies, but provides an even more central role to powerful conservation NGOs, which have extraordinary influence over the conservation establishment in Tanzania (Igoe 2004). The establishment of wildlife management areas, a thoroughly neoliberal conservation strategy that functions under the guises of community involvement, exposes the deep involvement of NGOs. In fact, Tanzanian law divided up oversight for the creation of the wildlife management areas among the most powerful conservation NGOs functioning in the country: the Selous area falls under the purview of the German development agency, *Gesellschaft fur Technische Zusammenarbeit*, the southwest parts of the country fall under the supervision of WWF, the Serengeti and surroundings are overseen by the FZS, and the northeast of the country is overseen by AWF (Igoe and Croucher 2007). Thus, the rolling back of the state under neoliberalism has coincided with a rolling out of services by NGOs in the conservation sector (Buscher 2011), and international conservation NGOs have been the vehicle through which this rollout has occurred. Additionally, AWF presently controls and operates the Manyara Ranch Conservancy, between Lake Manyara and Tarangire national parks. When tourists book exclusive safaris in the area, the majority of the profits do not benefit the Tanzanian government or people (Sachedina 2008). Furthermore, AWF's budget has more than doubled in recent years and, in 1998, the organization received more USAID funding than any other organization in the country (Sachedina et al. 2010).

Thus, the neoliberal transition's foregrounding of the neoliberal, autonomous, rational, empowered individual, which represented a massive shift from the prior long-standing relational conceptualizations of identity, the rollback of state services in both health care

delivery and wildlife conservation and the increasing rollout of NGO services to fill these voids aptly demonstrate the parallel trajectories of all three phenomena, exposing the inordinate influence of external actors upon Tanzania's internal workings. These dynamics all point to a significant shift in the trajectory of neoliberalism in the country. As the *Ujamaa* governance regime was relented to the powerful encroachment of neoliberal ideologies and policies, IFI aid was *conditional* upon government compliance with external mandates, in both the health care and wildlife tourism sectors. However, as time progressed and the certainty of such acquiescence was solidified, Tanzania has come to function within a rubric of *post-conditionality*, which serves as a testament to the dominance of neoliberalism in the country (Harrison 2001). "In post-conditionality states, implementing structural adjustment measures is no longer a political issue: it is simply taken for granted" (Richey 2010:266). Such a shift signals the hegemony of neoliberal governance and ideologies in the country and is well supported by trends within both health care and conservation.

Historical Impacts of Trends of Identity, Health Care and Conservation for HIV/AIDS

In this final section, I explicitly demonstrate how historical trajectories of identity, health care, and conservation, within each of the historical periods discussed above, have impacted the current state of HIV/AIDS in Tanzania and the epidemic's convergence with wildlife conservation. While the pre-colonial period is not directly relevant to the current dynamics of HIV/AIDS, it does establish a long-standing historical trend of relational identities and health care in the country. However, from the colonial period, through *Ujamaa*, and into the neoliberal period in Tanzania, subsequent historical periods left a mark on understandings of

identity, structural access to health care, and the development of conservation, all of which are directly relevant to the current state of HIV/AIDS in Tanzania and its wildlife conservation establishment.

Legacies of colonialism influence the contemporary HIV/AIDS pandemic in at least two important ways. First, it was during the colonial period that collective identities, along ethnic and tribal lines, became a particularly important way to assert political and economic control over the colonized. As I will show in Chapter Six, as recently as 2008, nearly 90% of Tanzanians espoused a collective identity, while HIV/AIDS ABC-based prevention programs continue to run as though people identify with neoliberal individual, rather than relational, identities (Robinson 2009).

Second, the system of biomedical health care, with its curative, urban-based characteristics, laid the groundwork for the spatial organization and foci of Tanzania's current two-tiered medical health sector, responsible for responding to the epidemic. Contemporary medicine bears the traces of the past, with its roots in the colonial decisions of the Germans and British, who used the development of biomedical facilities as another way to assert political control. Furthermore, the northern safari circuit is in rural areas, which means that the urban focus of colonial health care created a legacy where quality biomedical services simply were not available, save in Arusha, a pattern largely reproduced today. Additionally, it was during colonial times that FBOs began providing limited, rural, biomedical health services to native peoples, demonstrating the historical legacy of external influence within health care.

Third, during the colonial periods, wildlife conservation initiatives commenced. This seemingly positive step toward protecting parts of the natural heritage of Tanzania actually

expropriated large swaths of land and concomitant flora and fauna resources, increasing livelihood pressures for a great many rural Tanganyikans in the name of maintaining viable hunting populations for EuroAmerican game hunters. Because these livelihood pressures remain today, in part as a result the expansion of protected areas and the criminalization of harvesting the resources found therein, this distant history of conservation actually matters significantly for the HIV/AIDS epidemic in the area. Chapter Six addresses the ways in which residents of areas adjacent to protected areas may actually need to rely on proximate natural resources as a disease and livelihood coping strategy. However, due to the presence of protected areas, the utilization of such proximate resources is problematic. Furthermore, it was during this period that European conservation ideologies became the primary framework through within which the protection of land, plants, and animals was mobilized. Vestiges of this particular way of interaction with one's environment are still reproduced today, particularly at Mweka. Additionally, it was during these colonial regimes that wildlife conservation NGOs, so powerful today, both in terms of wildlife conservation, but also in terms of addressing HIV/AIDS within such spaces, were founded. Thus, the ways in which conservation professionals today view their place and role in their natural environments has a legacy that can directly be linked to dynamics first introduced during the colonial periods.

The post-colonial period of *Ujamaa* likewise impacted established understandings of self, the health care service apparatus, and patterns of conservation in the country. The period after independence was about asserting national control over the course of the country and minimizing external influences, including fostering a national relational identity. This added an additional layer of complexity and gravitas to the relational identities of most Tanzanians. Thus,

in complex ways and on at least two different, albeit competing, levels, the history of Tanganyika, and later Tanzania, produced a citizenry that, for more than 95 years, was structured around relational identities. The power and legacy of such identities cannot be ignored when examining how people think about and respond to HIV/AIDS. The *Ujamaa* government also worked to shift health care provision out of urban centers, so that people who most desperately needed access to care might be able to receive it. Furthermore, the Nyerere government worked to wrest control of conservation out of the hands of foreigners, though only somewhat successfully, pointing to the continued influence of powerful outside forces even during that time when Tanzania was most self-reliant. The governance shifts in identity, health care services, and conservation, under conditions of structural adjustment once again shifted the balance of power back toward external influences and worked in concert to undermine the provision of health care services to exactly those vulnerable groups, with significant consequences for the HIV/AIDS epidemic.

It is with the advent of neoliberalism, which coincided with the arrival of HIV in Tanzania, that we most clearly see the impact of historical and structural dynamics, regarding identity and health care, upon HIV/AIDS. Despite the fact that Tanzanians overwhelmingly understood and continue to understand the self in relational terms, there was a significant paradigm shift to the individual neoliberal actor. The responsible, self-regulating, empowered, rational actor, who needs only perfect information (in the language of economists) to be able to make self-maximizing decisions based on economic calculus is firmly established in the language with which the Tanzanian government frames the HIV/AIDS epidemic. The country's National Policy on HIV/AIDS states,

> Transmission of infection is preventable through changes in individual behaviour, hence education and information on HIV/AIDS, behavioural change communication as well as prevention strategies are necessary for people … to have the necessary awareness and courage to bring about changes in behavior at the community and individual levels … Individuals are responsible for protecting themselves and others from contracting infection. (URT 2001:11)

In response to epidemic, which social scientists have widely asserted has structural and collective dimensions, the country's governing HIV/AIDS response document situates the epidemic largely within an incompatible individual framework.[64]

Furthermore, the very creation of the National Policy on HIV/AIDS reveals the degree of external control that IFIs exert over HIV/AIDS-related activities in the country. The development of a National Policy was one of several requirements World Bank stipulated for Tanzania's participation in its Multi-Country HIV/AIDS Program (MAP), a major funding conduit initiated in 2000. In much the same way that IFIs imposed loan conditionalities as part of structural adjustment, the World Bank now imposes a number of requirements for eligibility for HIV/AIDS funding. These requirements were never ideologically neutral, but rather infused HIV/AIDS institutional responses with neoliberal ideologies of individual responsibility. Thus, the neoliberal subject is at the center of transnational understandings of and responses to and funding for the epidemic (O'Manique 2004). The instantiation of the economic, rational, empowered man (and it is nearly ubiquitously a gendered phenomenon) has very real consequences for how people come to understand themselves and utilize public services (Larner and Le Heron 2005). Despite the enduring power of both ethnic and nationalist

[64] The Tanzanian National Policy on HIV/AIDS does invoke the notion of collectivity, primarily through repeated assertions that communities must work together to combat the epidemic, but that collective rhetoric is not meaningfully operationalized in standard ABC HIV/AIDS prevention and awareness programs or in HIV/AIDS treatment programs.

relational identities among Tanzanians, the National Policy on HIV/AIDS states, "Individuals are responsible for protecting themselves" (URT 2001:12). This incongruence results in a profound tension between collective and individualized understandings of self and has significant implications for the ways people understand the impacts of HIV/AIDS, the drivers of the epidemic, and prevention techniques aimed at reducing viral transmission, as I will demonstrate in the chapters to come.

Additionally, the neoliberal re-establishment of a two-tiered health care system has had significant consequences. Unlike the vast majority of Tanzanians, conservation actors, by and large, can afford quality health care that is often employment subsidized.[65] So, it is not that these macroeconomic shifts and the concomitant restructuring of public service provision have restricted access to or resulted in poor-quality health care for most conservation actors. However, nearly all of these conservation workers participate in social-sexual networks with individuals who are not conservation sector employees, meaning that neoliberal macroeconomic policies that exacerbate the social problems of the poor and vulnerable have a wider societal impact. While any direct causality is impossible to determine, ethnographic data show that young men and women in the Kilimanjaro region of northern Tanzania perceive a relationship between the implementation of structural adjustment and increased exposure to HIV/AIDS (Setel 1999, Vavrus 2003, 2005). Furthermore, many men in the heavily male-

[65] An impediment to conservation actors' HIV/AIDS health care utilization that I am not discussing here, but which remains relevant, is the widespread perception that such facilities are not confidential. Due to high levels of stigma, many respondents reported that when they need to seek health care, they choose to go to non-government affiliated private health centers, where they believe confidentiality will be maintained.

dominated conservation industry have sexual relations with women who are in structural positions of vulnerability, which matters for their health as well as the health of their sexual partners. According to De Vogli and Birbeck (2005:106), "evidence suggests that adjustment policies may inadvertently produce conditions facilitating the exposure of women and children to HIV/AIDS." If SAPs propel dynamics that threaten women's health, indirectly they result in dynamics that also threaten the physical well-being of male conservation professionals, among others. Turshen (1999:20) asserts that "structural adjustment packages aggravate women's poverty and equality in ways that have special consequences for women's health."

These dynamics are well illustrated by reductions in antenatal care utilization and their impacts on HIV transmission. "By 1978, almost 95 percent of all pregnant women were visiting Maternal and Child Health Services" (Meena 1991:178). More recently, "a study of the impact of user fees for antenatal care in government hospitals in three districts of Tanzania showed a 53.4% decline in utilization after fees were introduced" (Nanda 2002:129). Antenatal care is strongly associated with reductions in mother-to-child HIV transmission, so significant decreases in antenatal health care use, driven in large part by neoliberal adjustment, can be linked to a worsening of the epidemic (Sherman et al. 2008, Temmerman et al. 2003, Thorne and Newell 2004). So, in the name of increased macroeconomic stability, SAPs have forwarded an agenda that appears to exacerbate the HIV/AIDS epidemic in Tanzania. Coupled with the fact that "women are more likely to be HIV positive than men" (URT 2010:8), we are forced to recognize that if HIV is correlated with both poverty and gender, more women live in poverty than men, and structural adjustment has been particularly detrimental to women, then

asserting a connection between structural adjustment and the feminization of the epidemic is reasonable.

The neoliberal shift in HIV/AIDS governance and service provision in Tanzania prioritizes external forces, largely driven by non-Tanzanian ideologies, funding, and infrastructure. In this way, it can be viewed as another chapter of the colonial projects implemented by Germany and Britain, albeit one with far more humanitarian and compassionate intentions. This shift in governance has significant implications for this research because HIV prevention and AIDS treatment are arenas in which NGO saturation is particularly high and, outside of Dar Es Salaam, the areas in and adjacent to the northern safari circuit have the highest saturation of NGOs in the country. With regard to AIDS treatment, NGOs that have been deeply involved in the rollout of life-sustaining antiretroviral therapy (ART) have attempted to mobilize forms of Foucauldian biogovernmentality through the exertion to discipline and the construction of therapeutic citizens (Dilger in press, Mattes 2011, Nguyen 2009). In relation to HIV prevention, the privileging of NGO-based activities has resulted in ideological and institutional tensions and frictions (e.g. Higgins 2010a,b). While structural adjustment certainly did not cause the HIV/AIDS epidemic, a number of its features can be persuasively argued to have exacerbated it (e.g. De Vogli and Birbeck 2005, Lugalla 1995, Masaiganah 2004, Mblinyi 1993). As Turshen (1999:13) cogently summarizes,

> As political insecurity and economic instability swell the movement of people in Africa, more workers migrate in search of work, the lives of more families are disrupted, and the behaviors associated with the spread of HIV are more common. Some commentators link the debt crisis, the current recession, and structural adjustment programs to the failure to control the transmission and spread of HIV infection. Disease epidemics generally erupt in times of crisis, and economic turmoil is related to widespread unemployment, intense competition in the crowded public informal sector, the feminization of poverty, women's low status in society, and

> the spread of HIV … The population at risk of AIDS is increased … indirectly through a decrease in health care provision.

It is likewise within the rubric of neoliberalism that we most clearly see the convergence of the HIV/AIDS epidemic and wildlife conservation. In response to the impacts of the epidemic, as both felt by conservation establishments in the country and detailed at length by conservation industry produced documents, conservation NGOs, including WWF, the Jane Goodall Institute, and AWF, have successfully lobbied for funding to begin to address HIV/AIDS within the conservation establishment. As I was told by several insiders during my time in Tanzania, the official story is that USAID recognized, I imagine with help from international conservation NGOs, primarily WWF, that HIV/AIDS is an emergent threat to conservation organizations, actors, and processes. Thus, USAID began looking for a way to provide funds to try to mitigate this emerging crisis. Within conservation areas in the northern safari circuit, nearly all of the prevention training is done by NGOs, funded either through TANAPA or through major conservation NGOs, such as AWF, that have jumped on the HIV/AIDS funding bandwagon. Indeed, in the past five years several million dollars of USAID funding to AWF has been explicitly earmarked to address HIV/AIDS in northern Tanzanian conservation spaces, through the Il Ramat project, bringing this discussion full circle (Wright 20009).

Although AWF explicitly has no history of addressing HIV/AIDS nor does it have anyone in the organization explicitly trained to do so, as the largest recipient of USAID funding in Tanzania and one that has immense influence in conservation areas around the country, AWF appeared to USAID as a logical recipient of such funding. AWF was then responsible for farming out this funding to two HIV/AIDS NGOs working in and near the northern safari circuit. Both NGOs went to national parks and protected areas and conducted HIV/AIDS trainings. Working

on HIV prevention in conservation spaces with funding provided by AWF, which on the surface has nothing to do with HIV, these NGOs demonstrate the complicated and sometimes convoluted pathways through which neoliberal health governance regimes function outside the explicit control of the state. Thus, we now begin to see the ways in which neoliberal subjectivity, external governance regimes, health care service shifts, and conservation under neoliberalism interact in ways that do not always meet the stated goal of effectively combating the HIV/AIDS epidemic in conservation settings. Furthermore, the traces of the past begin to be discernable in the present. Each of the following chapters draws on this assertion of historical situatedness to illuminate epidemiological patterns and understandings of and responses to the epidemic.

Conclusion

In this chapter, I contend that in order to be prepared to examine the impacts of HIV/AIDS in conservation settings, the ways in which conservation actors understand the drivers of the epidemic, and how institutional responses to the epidemic are enacted and responded to, it is necessary to first situate the story historically.

First, we have to understand the ways identity has been constructed over time, which today reveals contradictory traces of the pre-colonial, colonial, and *Ujamaa* era relational identities and contemporary neoliberal subjectivities. With the exception of the past 27 years, relational identification, whether ethnic and/or national, has been at the heart of how people understand themselves in Tanzania. However, the advent of HIV/AIDS coincided with the neoliberal transition in Tanzania, which was accompanied by a shift in how people were told

they *ought* to understand themselves and their agency. This neoliberal shift necessitates a focus on the ways in which the individual is positioned as an independent agent and the ways in which the individual is positioned within HIV/AIDS discourses as the locus of the epidemic, ignoring the economic and structural dimensions that are also ironically a result of the neoliberal transition. Contrary to what one would expect given Tanzania's history, HIV/AIDS interventions have foregrounded the neoliberal subject. Notions of identity have a history and this history powerfully attenuates how people understand and respond to the epidemic today.

The second theme addressed in this chapter concerns how external governance has shaped the delivery of health care services in Tanzania. Much like identity, health care service provision has a historical trajectory that remains salient today. The broad contours of Tanzania's health care apparatus, from colonial times until the present, have been heavily influenced by outside forces. Colonizers introduced biomedical health services to Tanzania, although not for the benefit of Tanzanians. Forming much of the two-tiered health system currently in place, international financial institutions and externally funded NGOs and FBOs have exerted significant influence on the development of the health sector since the end of *Ujamaa*. Because quality health care is only available to those who can afford to pay for it, when speaking of a largely sexually transmitted disease such as HIV, even those who can afford to pay for health care are affected by health care systems that deny effective treatment to those who cannot. In the chapters to come, I demonstrate how the neoliberal restructuring of health care toward nongovernmental HIV/AIDS service delivery has shaped the perceived impacts and drivers of the epidemic, as well as the ABC-based prevention techniques championed by the NGO sector.

Last, identity, the development of health care, and the evolution of conservation in Tanzania all share the striking imprint of long-standing and continued external involvement and influence. It is within this larger framework that the subsequent chapters are situated. The following chapter will situate the ways in which conservation professionals understand the drivers of the epidemic in their professional and personal lives within these interlocking historical trajectories.

CHAPTER FOUR

Feminist Standpoint, Subjectivity, and Perceptions of HIV/AIDS Drivers among Conservation Professionals in Northern Tanzania

Introduction

In order to understand how people working in and around Tanzania's northern safari circuit conceptualize the HIV/AIDS epidemic, we need to examine how such actors explain HIV's epidemiological drivers. During the course of this research, interviews with those involved in the conservation- and tourism-related industries revealed a dichotomy in the ways that respondents addressed the catalysts for the epidemic's spread. While a minority of elite respondents contended that unmediated individual behavior is responsible for the virus's spread, most highlighted the role of structural forces in shaping individual behavior. In this chapter, I employ feminist standpoint theory and Garland's (2006) examination of the production of wildlife conservation subjectivities as an explanatory framework to examine how it can be that such a seemingly homogenous group of actors, wildlife conservation professionals in northern Tanzania, can explain the drivers of the continued transmission of HIV in such disparate ways.

The divergent perceived drivers of HIV transmission, espoused by conservation professionals, mirror the main trajectories of the historical progression of how the HIV/AIDS epidemic has been understood by researchers and policy makers and how the various factors that perpetuate viral transmission have been discussed in the HIV/AIDS literature, as discussed in the introductory chapter. In this body of work, initial formulations of epidemiological causality targeted individuals seen to be 'at-risk' because of their inherent riskiness, for

examples the original 4H risk groups—homosexuals, heroin users, hemophiliacs, and Haitians. However, this quickly morphed into an assertion that individual behavior and not individuals *per se* were at the heart of the epidemic. Despite this important shift, the investigative emphasis remained on which groups of people were most likely to enact such epidemiological risky behaviors and on locating and mediating the individual level motivations for such behavior. These assertions of unmediated individual causality were subsequently called into question by the work of social scientists, including sociologists, who argue that we must contextualize seemingly individual behavior in order to understand the ways in which it is shaped by social environments and structural constraints.

In northern Tanzania, these explanatory trends were also reported by conservation professionals. Interestingly, the eight highest ranking conservation professionals with whom I spoke uniformly positioned viral transmission within the realm of individual behavior and personal responsibility. They suggested these problematic behaviors were not impacted by social forces, instead citing personal weakness, poor decision making, and excessive drinking as the main drivers of the epidemic in much the same way as early written arguments about HIV/AIDS drivers. In contrast, most informants, forty-eight mid- and lower-level conservation and tourism professionals and a handful of individuals working in conservation-related industries, collectively argued that individual behaviors cannot be understood without being contextualized vis-à-vis structural forces. These actors attributed ongoing transmission primarily to four macrostructural drivers that shape and constrain individual behavior: (1) the economic and infrastructure development that accompanies conservation and tourism in the region, (2) the relative economic inequality that results from this development, 3) a social

milieu of patriarchy and gender inequality that both precedes and is reinforced by such dynamics, and 4) social geographies of migration, isolation, relaxation, and proximity to the main transport route.

In order to understand how conservation professionals can mobilize such divergent perspectives on the drivers of HIV/AIDS, I draw on feminist standpoint theories and couple them with Garland's (2006) conceptualization of performative Tanzanian conservation subjectivities. This combined framework helps show how occupationally grounded social standpoint, informed by educational and professional status, frames how conservation professionals perceive the drivers of the HIV/AIDS epidemic.[66] Insights from feminist standpoint theories help us to make sense of how embodied social position, mediated by structural forces, shapes understandings of the HIV/AIDS epidemic. However, I use standpoint theory to pay attention to intraprivilege differences, a realm to which it has not been particularly productively applied. This provides an analytic frame through which to examine why those with the most professional status, class privilege and highest levels of education are also the most likely to attribute the spread of HIV/AIDS to individual behavior and shortcomings. But, standpoint theory alone is not sufficient because it does not address the learned origins of the privileged subjectivities through which these conservation actors understand the world around them.

To fill this gap, I couple feminist standpoint theory with Garland's (2006) conceptualization of how formal conservation training in Tanzania shapes subjectivities, informed by a post-structural understanding of subjectivity. Drawing on Garland's discussion of

[66] By professional status, I am referring to a combination of formal education, position within the conservation hierarchy, and income.

how conservation subjectivities are shaped by formal wildlife management training at the College of African Wildlife Management (Mweka), I argue that the more socialized into the individual-centric logic of conservation an individual is (i.e. the more formal conservation training they have successfully completed) and the more professional status they possess as a result, the more likely they are to transfer such understandings of individualism from the realm of conservation to that of HIV.

The propensity of very high-level officials to attribute the epidemic to individual drivers is extremely important for two reasons. First, despite earnest claims that individual lack of knowledge, irresponsibility, and excessive drinking are at the heart of ongoing viral transmission, these actors were no more likely than their less prestigious counterparts to self-report individually-oriented responses to such perceived individual drivers. That is, high level conservation professionals did not self-report increased levels of adherence to individualized prevention strategies, such as abstinence, faithfulness, or condom use, all of which are addressed in detail in Chapter 6. This incommensurability exposes a fundamental contradiction in which, despite grounding such notions of individuality in relation to the drivers of viral vulnerability, they did not embody such strong attachments to individuality in their own behaviors, demonstrating that even those most enculturated into an individualized worldview remain firmly grounded in social worlds predicated on relationality. Secondly, because these same professionals are the gatekeepers and decision makers for potential HIV/AIDS intervention programs, so what they think matters and has direct consequences for the ways in which HIV/AIDS prevention and intervention strategies play out on the ground. Those who perceive that the epidemic is driven by individual forces are more likely to welcome and

institute interventions that likewise privilege individual-level solutions, which as we will see in a subsequent chapter are failing to result in the meaningful large scale behavioral change that is their explicit goal.

In the next section, I outline a theoretical framework drawing on feminist standpoint theories and Garland's discussion of the emergence of conservation subjectivities at Mweka. In the following section, I examine the assertions of a small group of elite conservation professionals who contend that individual behavior, with no input from structural forces, drives the transmission of the HIV/AIDS virus. After that, I address the structural constraints that shape individual behaviors which the majority of respondents mobilized to explain the continued salience of the epidemic. I conclude the chapter by turning to a handful of upper mid-level conservation professionals who fall somewhere in the middle and sidestep this explanatory binary. They clearly articulate that it is a combination of structural constraints and individual behaviors, which together account for the continued transmission of the HIV/AIDS virus.

Feminist Standpoint Theories and Conservation Subjectivities

Over the past twenty years, feminist standpoint theorists have worked to illuminate and counter the prevailing patriarchal focus of the sciences, both natural and social. Feminist standpoint theorists argue that scientific knowledge has been constructed by men, for men, and that claims of scientific objectivity naturalize situated masculine standpoints, resulting in knowledge claims deeply rooted in the male experience yet passed off as universal. There have been several, somewhat divergent articulations of feminist standpoint theory. All of these

challenge the seeming objectivity of male-rooted knowledge claims in the sciences and claim that the view from below (particularly from women and other marginalized peoples) provides a clearer, perhaps more objective, set of knowledge claims regarding the many systems of oppression within which we all live. In this chapter, I complicate this notion of *a priori* insight based on gendered, racialized, or classed identities and rather suggest that, while not rendering such identity categories meaningless, it is equally productive to examine how learned identity shapes subjectivity and perception. In this way, this chapter reframes standpoint theories by focusing on intraprivilege distinctions and argues that the theory can be productively reconceptualized by focusing on socialized difference rather than gender identity and/or skin color.

Hartsock provides a Marxist materialist interpretation of the ways in which the devaluation of women's reproductive labor facilitates insights into patriarchal capitalist production that men fail to see and experience (1983). Hill Collins (1990) shifts the focus slightly with a racialized interpretation that places black women's embodied experiences at the center of the analysis and posits that women of color, by virtue of situatedness within interlocking axes of oppression, have greater insights into power relations and the systems of oppression that shape experience. Smith (e.g. 1987) argues that the naturalized masculine perspective, passed off as objectivity, marginalizes the experiences and understandings of women. She asserts that all knowledge is located in experience and that we all possess unique social locations vis-à-vis a variety of axes of oppression. When we acknowledge that our location in relation to these social fault lines possesses a group dimension and work to critically analyze how such a group positionality is impacted by those axes of oppression, we achieve a critical

standpoint, which can often facilitate meaningful insight into the ways in which social structures, institutions, and systemically structured roles shape epistemic opportunities and insights (Wylie 2004). While I agree with all of these points, conceptualizing standpoint theory in this way places it is on a slippery slope that potentially homogenizes subjectivity along racialized, gendered, and classed distinctions as Hekman (1997) has asserted. As Wylie (2004) correctly asserts, contemporary conceptualizations of standpoint must be both anti-essentialist and resist assertions of automatic epistemic privilege. In contrast to an articulation that sees the view from below as *a priori* more insightful, Haraway (1988) contends that all knowledge and positions of knowing are partial and situated. She does echo, in a slightly different way, the assertions above by contending that masculine claims to universality and objectivity work to position the observer as outside the field of social relations or influence, a kind of discursive "God-trick," in which the embodied particular becomes the disembodied universal (1988). In line with Smith, Haraway asserts that our positionality within social constructs shapes how we construct, interpret, and (re)present the world. She argues for situated knowledges, contending that "politics and epistemologies of location, positioning, and situating, where partiality and not universality is the condition of being heard to make rational knowledge claims" (1988:589). Coupled with the assertions that the view from below *often* enables more insight into social conditions, Haraway's insistence on situated knowledges provides a lens through which to examine how socialized identities, in this case those of professional conservation actors, shape subjectivity and perception. Some standpoint theorists might mistakenly contend that a seemingly homogenous group of relatively class privileged, educated, overwhelmingly male, black Tanzanian actors should embody similar subjectivities and thus see and experience the

world in uniform ways. But Haraway's notion of situated knowledges enables us to tease out distinctions based on professional status and hierarchies to show how and why this group espouses widely divergent explanations of the epidemiological drivers of HIV/AIDS.

I use certain aspects of this theoretical lineage to show how social location influences the manners in which respondents experience and understand the social-structural factors at the center of the spread of the HIV/AIDS epidemic.[67] Following standpoint theorists, I assert that knowledge is embodied and rooted in experience. Furthermore, peoples' varied positionality within social hierarchies fundamentally shapes experience and therefore knowledge. While standpoint theorists address social standing along the lines of gender, sexuality, race and class among heterogeneous actor, I am applying these insights to a seemingly much more homogenous group. Standpoint theory is an appropriate framework to use in this research because the underlying focus of these theorists is how unequal power dynamics across structural fields inform perception and experience. The conservation professionals interviewed during this research possess a varying degree of status and power within conservation hierarchies and despite the fact that all of them appear fairly well off, there remain significant class, educational, and status disparities within the group. It is upon these markers of differential power that this analysis hinges. Because, as I will argue, subjectivity is

[67] Despite exhaustive searches, I have only been able to find a single instance in which feminist standpoint theory has been used to examine HIV/AIDS related understandings, a 2007 MA. thesis by Tiphane Curry, which uses Hill Collins' black feminist thought to situate black women's meaning-making of HIV/AIDS campaigns in the United States. Thus, I believe this chapter represents the second instance in which feminist standpoint theory has been used to frame perceptions regarding HIV/AIDS and is the first time it has been used to do so outside of an American context.

largely learned, I now turn to the formal conservation training apparatuses through which this learning and emergence of subjectivities occur.

Mweka and Conservation Subjectivities

The College of African Wildlife Management is the premier conservation training institution in East Africa and receiving tertiary training there accomplishes two things. First, it provides students with the requisite skills to enter the Tanzanian conservation work force and intervene in and manage landscapes, flora and fauna, and adjacent populations. Second, and more important for this work, a Mweka education produces conservation subjectivities infused with individuality, power, and privilege. Mweka was created in 1963, shortly after Tanzanian independence, by AWF, then called the African Wildlife Leadership Foundation, run at the time by white foreigners concerned with maintaining viable animal populations for sport hunting purposes, as addressed in greater detail in the previous chapter. Those who spearheaded the creation of Mweka worried that with white conservation actors no longer in control of northern Tanzania's vast protected areas, 'backward' and 'uneducated' black Tanzanians were going to ruin these protected spaces and their fauna and flora populations (Bonner 1993). Thus, at its very core and from the very time of its inception, Mweka was explicitly about creating colonial conservation subjectivities: people who could be schooled and taught how to appropriately, at least through Western frames, relate to, dominate, and control the cherished conservation spaces colonial figures were forced to relinquish control of at independence. Mweka has been and remains fundamentally about constructing subjectivities that relate to nature in very

particular, Western-based ways infused with Western understandings of individual agency, power, and status.

Outside of highly specialized occupations such as law or medicine, conservation professionals possess, as a group, among the highest levels of educational attainment and professional training of any occupational group in northern Tanzania. Virtually everyone employed as a conservation professional has a minimum of one year of post-secondary professional training.[68] For instance, rangers or other professionals engaged in the daily operations of the park are required to have at least a wildlife certificate, which involves a single year of post-secondary training from either Mweka or the Pasiansi Institute of Wildlife Management, also in Tanzania. However, some of the respondents for this research had spent several years at Mweka, working on certificates, diplomas, and advanced diplomas. Without exception, all of the highest-level conservation employees I spoke with had attended Mweka for at least two years and many had spent, over the course of their careers, as many as five years at the college.

In addition to teaching the skills required to actually manage animal and plant populations, landscapes, and the people around them, interactions at Mweka actively shape students into wildlife managers, steeped in Western scripts of conservation (Garland 2006). Drawing on Butler's conceptualization of performativity (1990), Garland asserts that students learn to perform the identities of elites, wildlife managers, and state employees, and that this

[68] When referring to conservation professionals, I am explicitly talking about men and women whose daily responsibilities involve conservation related activities. Consequently, this discussion does not include employees of the park whose work is not substantively related to conservation processes, such as cleaning or building maintenance staff.

repetitive performance results in gradual shifts in subjectivities. In her analysis of the emergence of conservation subjectivities at Mweka, Garland frames her analysis within Althusser's rather mechanistic and teleological conceptualization of the emergence of subjectivity as a product of interpellation, in which the already existent subject is hailed into existence by ideological state apparatuses. She asserts that Mweka, while not exactly an Althusserian ideological state apparatus, "is a social context that is itself shaped by ideology, a context in which students and teachers work together to produce certain kinds of authority and subjectivity" (Garland 2006:177).

In contrast to this Althusserian framing of the emergence of subjectivity, I rely on a poststructuralist conceptualization, articulated by Fox Keller (2007:353), who writes, "Subjects are epiphenomena, constructed by culturally specific discursive regimes (marked by race, gender, sexual orientation, and so on), and subjectivity itself is more properly viewed as the consequence of actions, behavior, or 'performativity' than as their source."[69] In this schema, Mweka is the site of one such culturally specific discursive regime and becomes a site for the (re)production of a uniquely east African interpretation of the Western logic of conservation.

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[69] While Garland's Mweka findings are central to my own analysis of conservation subjectivities and I am grateful for her prescient insights, I rely on a post-structuralist conceptualization of subjectivity formation rather than Althusser's theory of interpellation, as she does. Althusserian interpellation stands in direct contrast to Butler's notion of performativity, which Garland draws upon and couples with Althusser. Butler's theory of performativity is grounded in French post-structural thought, which fundamentally rejects the tenets of French structuralism, a school with which Althusser self-identified. If subjectivity arises through performativity, than necessarily it is *not* about interpellation. I recognize that as Garland theorizes it, subjects are hailed into being as wildlife professionals at Mweka and they then use repeated performances to solidify this subjectivity. On the surface it appears to work, but the underlying theoretical assumptions of the two theories are fundamentally at odds. As a result of this incommensurability, I choose to employ Fox Keller's notion of subjectivity, which is theoretically in line with Butler's work.

Students are taught to "assume a proprietary relation to the wild animals and natural spaces they encounter" (Garland 2006:191). For example, the highest-level students at Mweka participate in a Wildlife Skills Safari, during which they spend two days in total isolation high on the slopes of Mt. Kilimanjaro. This experience, cited by many former Mweka students as a pivotal moment in their professional development, encourages aspiring conservation actors to conceive of themselves in fundamentally individualized ways—an 'I' alone in an adversarial wilderness with nothing but a few supplies and individualized skills upon which to rely. Instilled at Mweka, this assumption of a proprietary subject position in relation to landscapes and animal and plant populations is predicated upon an understanding of corporeality divorced from, rather than a part of, those landscapes. During my time in the field, daily (inter)actions were infused with such performances of mastery and domination. Thus, at the very foundation of this emergent Mweka subjectivity is the notion of the actor as individual, divorced from and possessing mastery over landscapes and populations.[70]

Mweka has three distinct courses of study: the certificate, diploma, and Bachelor of Science degrees, which vary in length from one to three years. The certificate course is one year long and suffices for entry-level conservation appointments, such as field rangers, while the diploma course is two years long and designed for mid-level wildlife conservation managers. The Bachelor of Science, recently renamed from the Advanced Diploma, is now a three year course of study and is designed for high-level wildlife managers. In this way, even the very

[70] Though the institution of teaching individuals to ground their experiences and interactions to environments and people at Mweka precedes the rise of neoliberalism and the articulation of the neoliberal subject, both are rooted in classical liberalism. Thus, as neoliberalism became an ascendant ideology in Tanzania, it dovetailed nicely with the pre-existing instructional regimes at Mweka.

courses of study begin to cement a status hierarchy among students that is fundamentally about self-positioning vis-à-vis power within professional hierarchies.

This professional, learned hierarchy that begins at Mweka is mirrored within conservation establishments and is fundamentally about status. Park wardens and those at the uppermost echelons of conservation in Tanzania isolate themselves, both physically and symbolically. Unlike most conservation actors, who spend their days in the field, getting their boots dirty, and sweating in the name of protecting spaces, fauna, and flora, most wardens and very high-level officials spend their days wearing suits in air-conditioned offices, being shuttled from meeting to meeting by drivers in expensive vehicles. Thus there is a spatially demarcated identity performance that is very much about reinscribing professional status and hierarchies. Indeed, the goal of many of these highest-level conservation professionals, with whom I spoke, is to secure funding for their own international education, which serves to further cement their self-maintained outsider status. This is a dynamic I personally witnessed among a handful of very powerful conservation actors. Field rangers may have gone to Mweka, which has afforded them a privileged location vis-à-vis the whole of Tanzania's socioeconomic hierarchy, but they are never allowed to forget that within the conservation profession hierarchy, their place on the proverbial totem pole is quite low. Thus, some people in the conservation establishment have tremendous status and power, while others do not.[71]

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[71] Nowhere was this clearer than in the ways in which my presence was received by these various actors. Drawing on my discussion of researcher positionality presented in the methods chapter, the unequal power dynamics within the conservation hierarchy were demonstrated by the ways people received and responded to me during the course of this research. High level conservation professionals engaged in a repertoire specifically designed to ensure that I was aware that they had the power in our relationship: multiple meetings were canceled and rescheduled, when meetings did occur they were often arbitrarily

Importantly, this intersection between individuality and power at the heart of conservation subjectivities in Tanzania applies not only to the landscapes and animals students are taught at Mweka to see as separate from themselves, but also to their fellow students. During informal conversations and interactions with groups of Mweka students, it was quite common for those with better grades or more class privilege to use humor to reassert their elevated stature within the student body hierarchy. Individualism becomes an increasingly important means through which to gain scholastic recognition and stand out from ones' peers. The more that aspiring conservation professionals assert their own individuality over the course of their studies through academic achievement and technical skills mastery within a meritocratic system, the more likely this process is to result in embodied self-

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cut short, respondents would often interrupt our conversation to address other matters, they often spoke in dismissive tones, and the interviews always took place in their offices, controlled environments designed to produce particular power dynamics. Also importantly, it is possible that the Hawthorne effect influenced these interviews. As a white male foreigner, working on an advanced degree, the centrality of individuality to my subjectivity was never in doubt. Thus, it is possible that such high level actors overly stressed the importance of individuality in their own lives and in the transmission of HIV because they believed that was what I was there to hear. However, I did not leave the field with this impression. Rather, I came to see such performances of individuality as a foundational part of the social repertoire which high level conservation professional had, both explicitly and implicitly, been taught and internalized as central to future successes. In contrast, many other respondents were gracious, dare I say happy to speak with me as long as there was a small token of reciprocity, often in the form of a soda, beer, or small meal. Yet in these cases I also acknowledge the power of my own subject position to shape responses because money functions as a kind of symbolic power. Furthermore, in a handful of interviews (not included in the data used in this chapter), there were informants who insisted HIV/AIDS was a serious threat to conservation despite either a) having just come out of school at Mweka, meaning they had not worked a day as a conservation professional and could only know this through instruction at Mweka or (b) having exactly zero personal experiences with the epidemic. This is important because the interview questions were always framed around personal experience, not hearsay. People knew I was there to talk about HIV and if they responded to initial questions by stating they did not believe HIV/AIDS was impacting their lives or their conservation organizations, they knew the interview would be a short one. Thus, it is important for me to acknowledge the ways in which my own subject position invariably impacted these interviews and the ways in which power dynamics and understandings of individuality were mobilized during them.

conceptualizations that shift from "embedded social participant to empowered external observer" (Garland 2006:209).

Successfully mobilizing this individual-centered conservation subjectivity is a necessary part of meritocratic achievement at Mweka. Yet, as Butler's theory of performativity suggests, these dynamics are cyclical: that is, repeated performances of individuality utilized to garner distinction and therefore success within Mweka's academic meritocracy in turn demonstrate to students that embodying subjectivities of individuality are crucial to success. Thus, performances of individuality beget meritocratic success that in turn begets further investments in individuality. During the course of this research, I was struck by the close relationship between the degree to which respondents conceptualized themselves as individuals, mobilizing ideas of individuality, and their position in the conservation employment hierarchy and the degree of conservation schooling they had undergone.[72]

Utilizing standpoint theories' insights and Garland's assertions about the socialization of students into ways of seeing and knowing that privilege individuality, we see that those conservation professionals with the highest-prestige jobs, usually those with the highest levels of formal conservation training, have been acculturated into a class and educational standpoint with which understandings of individual responsibility and personal behavior are entirely compatible. Indeed their placement in the professional status hierarchy was predicated on their

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[72] This is not to suggest that this relationship holds true for all Mweka graduates in all places at all times, but rather to suggest that this curious connection was one I observed over the course of months of interacting with and interviewing Mweka graduates in conservation settings in northern Tanzania. Nor is it to suggest that all Advanced Diploma graduates iterated these individual drivers and that none of the other respondents did so. The inclusion of this interview data is intended to demonstrate the complexity and contradictory nature of the insights gained in the field during this research.

doggedly maintaining the identity of a privileged individual, far removed from the everyday triflings of day to day conservation. As we shall see below, during interviews with such elite actors, even in their very language and the way they positioned themselves in relation to other conservation actors, they reinforce their outsider status.

So, while everyone who goes to Mweka is exposed to this process of individual-centered subjectivity formation, its impacts on their variegated subjectivities was anything but uniform. When these conservation professionals return to or enter the workforce, most do not occupy social locations that allow them to fully actualize and thus reinforce such notions of individuality writ large. As a result of their experiences of professional class privilege and status, some individuals at the very highest echelons of the conservation industry appear to have been, to some degree, shielded from the structural dynamics and inequalities that many other, slightly less advantaged conservation professionals positioned as being at the heart of the epidemic, including poverty, geographies of isolation and the inability to regularly visit their homes. Thus, they are more likely than their subordinates to mobilize tropes of individuality, not only in relation to the logic of conservation, but also in relation to HIV/AIDS. From Western perspectives, if you learn to see yourself as an individual and live a structurally privileged existence that allows you to act as an individual, then this idea of individuality is reinforced. As contemporary whiteness scholars such as McIntosh (1988) and Kendall (2006) assert, typically such a position can only be genuinely espoused by actors who are largely free from the structural constraints that shape most people's social worlds. As both feminist standpoint and critical race theorists have argued, privilege brings with it a kind of structural mystification. This dual process of naturalization and mystification is only made possible by a high degree of

privilege, which neutralizes the structural constraints that many less fortunate are required to navigate. An individual comes to believe that all choices are there for him/her to make, you make the ones you want, and then assume that all others can do the same, unaware of and mystifying the various structural constraints that shape most peoples' choices. This is why, as I argue below, those with the social locations that involve the most class and educational privilege mobilize ideas of individual choice and individual responsibility, while those whose lives are shaped by structural forces alternatively argue that such structural forces matter for how individuals act.

Conservation Subjectivities and Perceived Individual Drivers of HIV/AIDS

One might assume that those with the greatest degrees of education and success are in a position to understand their environments and lives in critically engaged ways. Thus, we might expect that those conservation professionals, who have spent the most time in formal wildlife training regimes and possess prestigious conservation jobs, would be well positioned to understand the ways in which large scale social forces shape individual lives and behaviors. Yet, surprisingly in this research, it was precisely people in such positions that were ironically least likely to make such a connection, a research finding very much in line with the insights of standpoint theory. Thus, in regard to HIV/AIDS, it was those respondents who had spent the most time at Mweka and finished the most prestigious level of instruction and had consequently gone on to occupy the highest-status conservation positions who were also the

most likely to mobilize understandings of individuality in relation to the epidemic.[73] This is, in part, because during their time at Mweka they learned to perform Western-inspired Tanzanian scripts of conservation, central to which is the learned virtue of individual autonomy, as discussed above. Experiencing and understanding life through such privileged standpoints continually reaffirms the centrality of individuality and meritocratic success in a circular, self-fulfilling way that obfuscates the constraining power of the systemic inequalities that less privileged conservation professionals regularly negotiate.

In fact, a handful of conservation professionals with whom I spoke embodied this elite individualized conservation subjectivity to such a degree that they rhetorically distanced themselves even from their fellow Tanzanians. One very highly educated high-level conservation manager told me, "Especially in the countries in Africa, this HIV problem is still getting worse because you tell the people, 'don't do that' [have unprotected sex], but they still do. That comes down to personal weakness." He uses the phrasing "in the countries in Africa," despite the fact that the interview took place in Tanzania and therefore could have been expressed as 'here' rather than as some distant place. Also, he talks of "the people" and refers to them as "they" rather than "we" clearly positioning himself as existing in a separate space and identity category from his fellow Tanzanians. Furthermore, he asserts that it is personal weakness, irrespective of any structural constraints, that is responsible for the epidemic. This

[73] One interesting dynamic which bears mention is that although these more highly educated conservation professionals were more likely to attribute the responsibility for the spread of the epidemic to individuals and their behavior, they were no more likely than other respondents to self-report adherence to the individualized preventions methods of abstinence, faithfulness, and condom use.

makes sense though because, as discussed above, Mweka's educational and cultural scripts encourage students to conceive of themselves in a detached, elitist fashion within a meritocratic system. Within such a framework, the bad things that befall a person in life are not shaped by structurally situated social position or external factors, but rather are due to personal shortcomings or lack of effort. Thus, the locus of blame for failure (or in this case illness) is placed squarely on the shoulders of the individual.

In response to a question about why HIV/AIDS is impacting conservation professionals, one very high-level park manager responded, "If you ask me about HIV then you're asking me about individual feelings and behaviors. In order for you or me to change this individual's feelings or behavior, we really need to get to the individual level because behavior is up to the individual. Many people get HIV because they had bad behavior/habits [*walikuwa na tabia mbaya*]." This very high-level conservation actor invoked a moral rubric to assert that viral transmission results from poor individual decision making and resultant 'bad behavior.' This respondent explicitly contends that if we want to understand why HIV/AIDS is an issue, we should not look to social forces, but rather must cast our gaze on individuals, looking for whatever personal defects or behavior choices might predispose someone to increased vulnerability, exactly as preliminary theorizations of causality found in HIV/AIDS literatures suggested.

Because of this conservation professional's high level of educational attainment and socioeconomic status, substantial salary, and the mobility afforded by private transportation, he appeared insulated from the constraining dynamics of the structural drivers of the epidemic. In the course of our discussion, he went so far as to actively reject the salience of structural

factors that shape the behavior of most Tanzanians vis-à-vis HIV/AIDS, including the existence of poverty in the area, a social force that has been linked to the epidemic around the globe: "If you talk about HIV/AIDS here in [XXX, the town near the national park], it is not about poverty because *there is no poverty here*. If you were to go out and make calculations and statistics, you will find that [XXX] is not a place for you to talk of poverty." In the course of many months of coming and going from this town adjacent to a national park, daily scenes consisted of a strange dichotomy between those with significant financial resources, most often tourists being quickly shuttled down the main road in $75,000 safari vehicles stopping only to procure some genuine tokens of Africanness from the tour drivers' prearranged arts, crafts, and curio stands. Conversely, there were ever-present reminders of grinding poverty: the desperate faces of curio vendors running after expensive potentially profit-filled vehicles with arms full of trinkets outstretched, street children huffing glue down side streets in broad daylight, and commercial sex workers patiently biding their time until nightfall. As Muganda et al. (2010) point out in their recent article about the possibilities of tourism serving as a panacea to the poverty in Mto Wa Mbu, a village located along the main tourism and trade transportation route adjacent to Lake Manyara National Park, the town is an impoverished area for the majority of residents. However, despite the poverty visible to both academic researchers and casual observers, the elite, high-level conservation professional quoted above argues there is no poverty there. Because of a position of privilege, this person is able to ignore the structural dynamics at play in the community; as Hartsock (1983:292) asserts, "If material life is structured in fundamentally opposing ways for two different groups [the highly privileged conservation managers on one hand and other conservation professionals and those that service the industry on the other

hand], one can expect that the vision of each will represent an inversion of the other, and in systems of domination the vision available to the rulers [the elite conservation actors in this case] will be both partial and perverse." Material life is experienced in fundamentally oppositional ways by these two groups of people, where wardens and other very highly privileged conservation actors can assert that poverty is a nonissue when discussing sexual practice because poverty is not an issue that constrains their everyday lived experience. On the other hand, most conservation professionals, who do not quite share the same degree of class, professional, and educational privilege, assert that sexual practice cannot be understood expect through the constraining dynamics of poverty. Recognizing these partial perspectives is critical to understanding how elite conservation professionals can earnestly assert that it is individual behavior and not social context that impacts vulnerability.

From a similar position of privilege, another very highly educated male conservation manager responded to a question about the relationship between poverty and HIV/AIDS with the following remark:

> The big problem is not poverty, it is prostitution and behavior. There are some people with very nice jobs who are prostitutes. There are a lot of commercial sex workers who are getting a good salary at a regular job, so you cannot say that they are poor. You cannot say that this is about poverty. It is a question of behavior. If people are careless, then they are careless and this is not something that is about money … this is about behavior only.

Again, this highly educated, high-level conservation professional mobilizes a blame-the-victim discourse insisting that the causal agents of HIV/AIDS in conservation settings are not conservation professionals themselves, but careless commercial sex workers, who he discursively positions as *wanting* rather than *needing* this work. The possibility that politico-economic structural constraints may position some women as having few viable livelihood

alternatives to commercial sex work and that this structural dynamic influences the shape of the HIV/AIDS epidemic in the area is forcefully dismissed. After all, if you have a "good salary at a regular job," there is no livelihood necessity to engage in commercial sex work. Like the park manager above, this respondent outright rejects the notion that structural factors play a determinate role in situating or constraining individual behavior in favor of the individual-centered assertion that many women contract HIV because of their careless, greedy personal behavior. However, as detailed in the Introduction, social scientific HIV/AIDS literature has now extensively demonstrated that the existence and severity of social inequalities, such as the ones these highly educated and well-positioned conservation practitioners deny the relevance of, do in fact map onto the worldwide epidemic in ways that strongly suggest a relationship between inequality and viral vulnerability.

Other elite conservation actors tied the blame for the spread of the HIV/AIDS epidemic to individual behavior and responsibility through assertions about alcohol consumption. The causal link between alcohol consumption and increased vulnerability has been widely established through research in both general Sub-Saharan contexts (e.g. Ferry 1995, Fisher et al. 2007, Kalichman et al. 2007) and within specifically northern Tanzanian settings (e.g Mmbaga et al. 2007, Mnyika et al. 1996, 1997). This research requires the acknowledgement that personal choices surrounding alcohol and subsequent sexual practices do indeed impact the epidemic in significant ways. However, I contend alcohol consumption is also a structurally situated phenomenon so it is problematic to assert causal primacy to alcohol induced behaviors as a manifestation of poor individual decision making and personal irresponsibility.

Despite the sociocultural and political-economic contexts within which drinking alcohol occurs, elite conservation managers contended that alcohol consumption and the resultant decisions to have unprotected sex while under the influence are fundamentally about individual irresponsibility and poor behavioral choices. When asked where, exactly, HIV/AIDS is to be found, one privileged senior respondent answered, “This disease is found in social environments like bars because people there are drunk and they do not take care of themselves.” While there is validity in the assertion that alcohol impairs judgment, suggesting that alcohol consumption is the main epidemiological driver, as he did by remarking, “most people actually will say that alcohol is the source of why people get HIV,” is to impute individual decision making and behavior with far too much causal significance. Drinking behaviors cannot be divorced from the social contexts in which they occur and these social contexts are profoundly shaped by structural forces of inequality.

Excessive drinking as a primary causal epidemiological factor was a common trope among the most highly privileged and educated conservation professionals with whom I spoke. Another elite male protected area manager indicated, “When people choose to go and get totally drunk at the bar and then do not protect themselves, I am still insisting that this is a personal issue.” At issue here is not the notion that people have no personal agency through which to make decisions or that such decisions do not include the choice to become intoxicated, but rather that asserting that personal choices around alcohol and subsequent sexual practices are the main drivers of the epidemic is to miss the point. Complex epidemics such as HIV/AIDS defy easy categorization when it comes to causal drivers and to suggest that

either individual behavior or structural dynamics alone are at the heart of its perpetuation is to engage in reductionist thinking that obfuscates the multiple dynamics at play.

Another highly educated male conservation actor echoed these sentiments of HIV/AIDS being directly related to alcohol consumption in a slightly different manner by asserting,

> After drinking and getting drunk, you become confused and then you see a very beautiful lady passing nearby you. Even the normal thinking that is in your head becomes lost when you are drunk. Here is the problem, because you break the understandings inside your head because of alcohol. Especially when it comes to making good decisions about protecting yourself, alcohol is the big contributing factor.

In this assessment of the role of alcohol in promoting the spread of the disease, drinking results in individuals becoming confused and therefore not making the viral prevention decisions they would make in the absence of alcohol. This line of reasoning suggests that if we want to understand why HIV/AIDS is an issue in the northern safari circuit, we need to focus our gaze primarily at the level of individual behavior and responsibility. Utilizing the insights of standpoint theory, we can suggest that the privileged life experiences of these very prestigious conservation professionals facilitate a perspective that fails to adequately account for the constraining forces of contextual social structures. In contrast, people occupying more marginal social positions in relation to the conservation hierarchy possess a kind of strong objectivity, which emerges from lived experience and acknowledges the differential productions of power inherent in social structures, which these elite respondents actively minimized. It is to these structurally situated understandings of the drivers of the HIV/AIDS epidemic to which I now turn.

Conservation Subjectivities and Perceived Structural Drivers of HIV/AIDS

During this research, most conservation professionals asserted that there were four overlapping structural dynamics behind the spread of HIV/AIDS in conservation settings: (a) the economic development that has been driven in the area by conservation and tourism, (b) the relative economic inequality that results from this development, (c) the degree to which patriarchy and gender inequality shape social vulnerabilities, and (d) the role played by spatial dynamics and their shaping of social interaction. Seen through the rubric of standpoint theory, this should come as no surprise because, as many respondents indicated, these same dynamics strongly influence their lived experiences. Though they all attend training institutions such as Mweka, where they learn to perform the ideology of individuality, they then enter workplaces where such an ideology is met head on by structural forces that limit its full actualization. Thus, when these respondents argue that it is a combination of these forces that shape the HIV/AIDS epidemic, it is because they are the same forces that shape their everyday lives.

Conservation and Tourism-Related Development as a Structural Driver of HIV/AIDS

In the introductory chapter, I established that there is a small body of literature which asserts a relationship between economic and infrastructure development and the HIV/AIDS epidemic. In this section, I mobilize the voices of conservation professionals to demonstrate that they similarly contend that economic development, which in this area is driven by conservation and tourism and holds profound promise for some and further immiseration for others, is intimately tied to the perpetuation of the epidemic in the northern safari circuit.

In an environment with relatively high levels of poverty, some conservation actors argued that conservation and tourism in the area and the accompanying development and influxes of capital manifest both positive and negative consequences. One insightful young male ranger told me:

> There is no development that comes without some kind of negative impact. So that means that anytime you have *maendeleo* [development], you can expect some kind of negative impact. I think that with conservation and tourism, you see that it has both positive and negative impacts. Right now there are a lot of tourists coming and a lot of people are making a lot of money, but the negative impact of tourism is HIV …. So the side effect of development is HIV.

Thus, it is not simply that conservation and tourism somehow directly lead to HIV/AIDS but that the development and prosperity that accompany them have resulted in both positive and negative outcomes, which shape individual action in powerful ways.

Indeed, the towns along the northern safari circuit have grown tremendously since the paving of the road from Arusha to Ngorongoro, which has greatly facilitated the expansion of the conservation and tourism sectors. The development of infrastructure, roads, electricity, water and sanitation, hotels, restaurants, and concomitant employment has brought some individuals in the area a level of material comfort that was simply unattainable even a mere ten years ago. Conservation and tourism have arguably come with economic incentives for community conservation programs in the area as well.[74] For instance, my research partner, a resident of the Ngorongoro Conservation Area (NCA), had schooling, from primary through post-secondary, funded by the NCA Pastoralist's Council, which receives its funding directly from conservation and tourism revenue.

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[74] There are plenty of scholars, and local residents that contend that these seemingly positive gains for community conservation have come with their own set of problems and have possibly done more harm than good (see Goldman 2006 and Igoe 2004 for two representative critiques).

But all of this capital, development, and accompanying employment also produce unintended adverse consequences, as expressed by a field ranger, "You know, here in Tanzania most people are very poor, but when it comes to issues of conservation, there is a lot of money and people are willing to do all sorts of things to get part of that money, including things that lead to HIV." Here, in rather oblique terms, a mid-level male conservation actor contends that the presence of conservation and tourism-related monies amidst impoverishment results in behaviors that increase viral vulnerability. He goes on to suggest this is particularly the case for women who use sex as a way to get a part of that money.

Many people working in and around conservation and tourism expressed a belief that the relatively large salaries of those in these industries, as well as the capital necessary for the development of infrastructure, represent problematically large reserves of capital in an otherwise capital-poor setting. As one high-level conservation professional contended, "this area, between Arusha and Ngorongoro is like a *kitalu* [hunting block], an incubation site for HIV." It is not necessarily that there is anything about conservation or tourism *per se* that drives HIV/AIDS, but because development and commerce in the area are largely driven by conservation and tourism, it is easy to point to this source of the influx of capital and development as a driver of the epidemic. As one male mid-level conservation scientist put it:

> To me it is much more of an issue of commerce than tourism and conservation. It just so happens that the business of Karatu is conservation and tourism, so the people who have money in their pockets in Karatu are people who are working in conservation and for tourist companies. But if Karatu was, for instance, a center of fishing then people would blame this problem on the businessmen that come to take the fish.[75]

[75] This assertion, of fishing as an uneven economic driver which functions as a causal epidemiological factor, is supported by academic research (Bene and Merten, 2008, Merten and Haller, 2007, Mojola 2011).

This park ecologist argues that while there appears to be an intrinsic connection between conservation and HIV/AIDS, it is rather the fact that conservation is the major source of economic development in the area. Another middle-aged male long-time park ranger echoed this sentiment:

> I can say that this is not only a problem of conservation because if you go to a place like Mererani, which is the center of Tanzanian mining and is also the result of development, you will find that there is HIV there, just like there is here in Karatu. You will find this problem anywhere that you go to places of business where there is a lot of money and capital. But here, parks and HIV/AIDS go hand in hand.

Because of a lack of available income for most area residents, they work to secure a small part of the conservation and tourism revenue for themselves by operating small formal or informal businesses that cater to the needs and desires of those in the conservation and tourism industries. So, much as has been documented elsewhere (e.g. Jacobsen and Van Dyke 2007), economic development brings with it HIV/AIDS. In the northern safari circuit, that development is conservation tourism and whether speaking of infrastructure, educational subsidies, or petty trade, the connections between conservation-related development and HIV/AIDS cannot be ignored. These development-related dynamics, which increase viral vulnerability, cannot be understood except in relationship to three other structural forces, each of which both compounds and is compounded by the epidemic: economic inequality, gendered inequality, and sociogeographic patterns of mobility. All three of these remaining structural drivers have been linked to the epidemic in non-conservation settings, yet each is, in its own way, compounded by the specificities of conservation organizations, practices, and geographies. It is to these three structural drivers of HIV/AIDS that I now turn.

Relational Economic Inequality as a Structural Driver of HIV/AIDS

While there is substantial evidence to suggest that those in absolute poverty constitute the most vulnerable population for infection, in conservation settings in northern Tanzania, it is not so much absolute poverty, but relative inequality that is at the center of this dynamic (e.g. Gillespie et al. 2007b). As discussed in the introduction, wealth clearly also matters, evidenced by the two most recent TACAIDS national prevalence surveys (TACAIDS 2005, TACAIDS 2008), which indicate that wealth, not poverty, is positively correlated with increased seropositivity for both men and women. Shelton et al. (2005) write that in Tanzania wealth is associated with the mobility, time and resources necessary to maintain concurrent sexual partnerships and that these concurrent relationships explain how people can report few sexual partners, yet still be vulnerable to infection. This dynamic of having a regular sexual partner outside of marriage was one discussed by many respondents.[76] Since epidemiologically significant relative poverty is contingent upon wealth (Gillespie et al. 2007), this dynamic cannot be divorced from the development that accompanies conservation and tourism, which generates the potential for such wealth. Though it takes place in the Kenyan region of Lake Victoria, in relative geographic proximity to the research sites of this research, Mojola (2011) persuasively demonstrates the influence of the intersections of eco-social fishing environments, relative wealth disparities, and gendered inequalities upon sexual practices and HIV risk. She argues that gendered wealth disparities, which result from fishing, are central to understanding the contours of viral

[76] Many people I spoke with were quick to suggest that their colleagues had such relationships, though no one admitted to personally having one. I attribute this dichotomy to a combination of my own positionality, the potential moral sanctioned associated with admitted extramarital sex, and the Hawthorne effect.

vulnerability in the area. In much the same way, the development that has accompanied conservation and tourism development in northern Tanzania has fostered conservation-centered relative economic inequality, which respondents forcefully argued is a central dynamic of viral transmission in the area. This section also builds on the work of Jones and Norton (2009) and Dworkin and Ehrhardt (2007), who argue that the feminization of relative inequality in east African settings is a major driver of the epidemic.

One middle-aged male conservation actor explained how this dialectic plays out on the ground, stating, "There are two parts to this: those people who have money and those people who are poor …. These things depend on each other." Economic inequality is fundamentally relational because it involves both segments of the largely male dominated conservation and tourism establishments, earning relatively high salaries, and also impoverished women, who come to Karatu, or areas like it, following the money in search of a part of it. As one young male Ngorongoro ranger put it, "In reality, most of the people are trying to make a connection to conservation and tourism and that leads to HIV" because one of the only available avenues to make such a connection is through commercial or transactional sex.[77]

Many people in the rural areas adjacent to protected areas have few avenues to generate liquid income, other than to follow the conservation and tourism dollars to locations like Karatu. The emergence of wage labor as a defining principle of Tanzanian political economy is a relatively recent phenomenon, outside of which a great many people still secure

[77] While it is true that there is an opposite dynamic of wealthy women, referred to as Sugar Mommies, and poor men, this is not the dynamic at play in the heavily male dominated world of Tanzanian wildlife conservation and, as such, is not a focus of this analysis.

livelihoods. Thus, as Gillespie and colleagues (2007b) point out, disposable income results in an exploitable structural position that opens the possibility for higher rates of partner exchange and increased spatial mobility. As a mid-ranking male conservation professional indicated, "All of the people who are working in this park are earning money, sufficient salaries. Even those people who work here that are earning just a little have enough money to go and sit in the bar every day, so people will say this guy has got a lot of money. Since he has got this money, he will go to the bar to find a lady." As I will show below, part of this dynamic is that those not involved with the conservation and tourism industries are well aware that those who are earn more than almost anyone else in the area. Thus, these men who work in the conservation establishment are sought out as potential sources of income.

There certainly are plenty of people who have been drawn to towns in the northern safari circuit in search of income who find jobs that do not necessarily increase susceptibility to the virus, including many who work in lodges, souvenir shops, or within the conservation and tourism establishments themselves. Interviews with both men and women suggest there is a gendered dimension to this phenomenon. As the matron of a popular local drinking establishment in Karatu commented, "Nowadays many men who work in the parks and in tourism are using money to find sex. Women who have no money will use this opportunity to get money. Then they end up getting HIV through this way of finding money, because of economic issues." The economic marginalization that compels individuals to come to towns adjacent to or on the route to protected areas in the northern safari circuit has driven a large number of women to these towns where employment opportunities are limited. As one young female HIV/AIDS trainer based in Karatu put it:

> The issues of HIV/AIDS in Karatu are not just about behavior, much of it revolves around economic opportunity. So you find that most people here actually are getting HIV because of poverty. We find many women newcomers to town and at the end of the day they don't have even enough money to pay for a house or room. How about their meals? What about the baby that they left in the village? So we find that they have to rely on friends, who are already in towns like Karatu and know the bars where these ladies can find work. But these bars are the places where commercial sex work takes place because that is where men from the park go to relax and drink.

Thus, gendered economic inequality is intimately tied to conservation and tourism, the main financial drivers in the region and the men who work in these establishments constitute the population most financially empowered to take advantage of the relative poverty of women.

According to conversations with numerous conservation practitioners, salaries for those in the industry can average 50,000TSH per day, while the average cost for engaging the services of a commercial sex worker is 10,000TSH, less than $7USD. While indeed it is a question of poverty, it is also a question of gendered relative affluence in two ways. First, women can make a lot of money as commercial sex workers, relative to other employment opportunities. Thus, it may not always be the case that commercial sex work equals survival sex because, as I witnessed, continued commercial sex work provides women with self-generated relative affluence that supports an otherwise unattainable lifestyle. Secondly, the commercial sex workers waiting in the bars are dependent upon the arrival of men working within the conservation and tourism establishment. As a male senior conservation ranger said,

> If you come to Karatu during the evening and go to the Elephant Bar [or a handful of other bars in the town], you will find at least 10 expensive vehicles from the parks and tour companies and many women and girls sitting there waiting for these men. Both men who work for tour companies and also men who work for the parks will go there to find these women. If you want to have some time with a commercial sex worker, you can just go there and pick one …. And so it is a question of poverty.

Countless nights in the field confirmed this assessment of the situation. Before sunset, women are out in the streets conducting their business and going about their lives, but as the sun sets

in Karatu, most women disappear behind property gates and closed doors. Then, the place you are most likely to find women out and about is in these bars. One tourism hotel manager, who has been in Karatu for twenty years asserted: "From the beginning of evening you will find that all the ladies have gone inside, you will not find them in the streets after dark, so when you see them roaming about or sitting in groups at a bar, you know they are commercial sex workers." Though this is undoubtedly an overgeneralization, it is not an exaggeration to say that as the sun sets, rugged Landcruisers and Range Rovers begin to arrive at the bars, clogging the narrow dirt roads. The bars fill up with men from the parks and tourism companies, laughing, drinking beer and *Konyagi* [an inexpensive Tanzanian liquor] and eating the staple meal of the affluent, *nyama choma* [grilled meat]. Throughout the evening, many women eagerly loiter around the bar nursing a drink and waiting to be called over to a table. As a mid-level male ranger indicated:

> If you look at the women who are coming here, they have come to try and earn a living off of tour drivers and those of us who work in national parks. They think that if they can at least meet with people who work for the parks, maybe we will bring them drinks or meat and maybe even pay for their accommodations. That is enough to make them do things they shouldn't [engage in transactional sex]. There are not many opportunities here.

The commercial sex workers I spoke with indicated they did not desire to be earning a living in that way, even though many men who employ their services would contest this position.[78] The women I talked to saw little viable alternative, particularly to access such significant income. As one female commercial sex worker in Karatu lamented: "The problem is

[78] This however may very well be Hawthorne effect induced. During my time in the field, I personally confirmed that one of the commercial sex workers, with whom I spoke on a handful of occasions, was gainfully employed in town as a bank teller. Though this realization calls into question the automatic assumption that all women engaged in commercial sex are doing so out of desperation, I do not question the genuine air of desperation many of the other women I spoke with expressed.

not us women. It is a world where we have no alternative for employment but our bodies." These women, by virtue of their position within economic hierarchies, view the root of the issue not as individual behavior, but rather as the structural forces that severely restrict individual choices regarding economic survival. Thus, within this analytic frame, the commercial sex workers discussed above come to inhabit, "outsider-within locations, [and can be productive analyzed as] individuals whose marginality provided a distinctive angle of vision … [of] subordination," not accessible to those who are, relationally, privileged within social hierarchies (Hill Collins 2003:329). Thus, macrostructural forces related to conservation and tourism development, coupled with relative poverty, promote a situation which, in conjunction with low levels of condom use, potentially facilitates the spread of the epidemic.

Patriarchy, Masculinity and Gender Inequality as Structural Drivers of HIV/AIDS[79]

The United States Agency for International Development (USAID) released a report in 2003 indicating that gender inequality in Tanzania remains a significant obstacle to adequately addressing health issues, including the HIV/AIDS epidemic. Social scientists are, likewise, in agreement that unequal gender dynamics drive epidemiological vulnerability in significant ways in Tanzania (e.g. Akeroyd 2004, Boesten 2009, Mkanta 2007, Nunan 2010, Setel 1999). A

[79] There are additional patriarchal behaviors in the area which contribute to the acceptance of masculine control over women's bodies, including the normativity of polygamy in the region and the socialization of young boys and men to recognize the power, prestige, wealth, and social status which accompany a number of wives. As one young male ranger told me, "You're supposed to have many wives so that you can show first of all that you are rich, secondly that you can handle all the females, thirdly to show that you have a lot of children because then you have a lot of labor power, and fourthly it is about prestige." However, due to the fact that this dynamic is not centrally related to the conservation establishment, I choose not to focus on it here.

related body of literature focusing on East African masculinities and their relationships to HIV/AIDS is central to this discussion.[80] Chiuri (2008:163) contends that patriarchal social structures and cultural norms, "legitimize and concentrate power positions on men with exclusive control over decisions, access and manipulation of social order and resources," and that women and children typically find themselves in subordinate positions to men. This structural subordination provides the cultural space for men to exercise control over women's bodies and also contributes to women's continued economic dependency. As we will see, understanding the dynamics that shape the HIV/AIDS epidemic requires recognition of the power of hegemonic masculinities in the area.

Silberschmidt (2005) argues that recent economic changes associated with post-coloniality and globalization have undermined the ability of many Tanzanian men to maintain a breadwinner status. She suggests that this politico-economic shift, coupled with a breakdown of traditional norms regarding sexual practice and the fact that "men do have … relative freedom, compared to women, particularly in sexual and reproductive behaviors," has led to a reassertion of a masculinity in Tanzania through sexual control of multiple women's bodies. She writes, "Sexual manifestations and control over women … seem to have become fundamental to a process of restoring male self-esteem" (Silberschmidt 2005:195-200). She also found that this occurs largely within the geographies of drinking establishments. While there is no doubt

[80]This section actively pushes back against any monolithic conceptualization of masculinities in northern Tanzania, recognizing that men can and do occupy a variety of gendered spaces and that not all men engage in problematic gendered practices. However, by virtue of residing in patriarchal social environments, "all men have access to the patriarchal dividend, the power that being a man gives them to choose to exercise power over women" (Morrell and Ouzgane 2005:7).

that impoverishment does threaten men's abilities to meet normative masculinity requirements for many men in Tanzania, it did not appear to be the case among those well-remunerated men working in conservation and tourism settings for three principle reasons.

First, the conservation and tourism establishment is extremely male dominated. With the exception of a single woman working in a high-ranking conservation position in the area, all positions of power I encountered were occupied by men.[81] This does not mean that there are no women employed in the conservation establishment, but the most common space for women in the conservation industry is the office. It was not uncommon to enter a conservation office to find only a woman ranger, with all of the requisite training and experience to perform all duties associated with being a ranger, left in the office to busy herself with paperwork and other secretarial tasks.[82] This reveals underlying patriarchal assumptions both about the capabilities and appropriate jobs for women.

However, the idea of women's empowerment is now one heard quite frequently in Tanzanian gender discourse (e.g. Chachage and Mbilinyi 2003, Kiwara 2003). Among the women working in the conservation establishment, this idea of empowerment existed as little more than a chimera. One middle-aged female ranger working as an office secretary told me, "There is not any kind of women's empowerment inside this organization." Another woman

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[81] Though I place absolutely no credence in them, it is important to note that many men working in the conservation sector in the region spoke of this woman in hushed conspiratorial tones, suggesting that she received her position not through her own merits and hard work, but rather through dubious personal connections and sexual favors. Though never to her face or in the presence of her direct subordinates, this discourse of hearsay and rumor served to undermine the power of her authority.

[82] Similar patriarchal dynamics have been documented in Tanzanian conservation NGOs (Sachedina 2008).

working as a ranger in the area told me, “Women’s empowerment is just not here in places like this. For example, in an organization like ours, I have never heard anything about issues of women’s empowerment. I have never heard anything about the organization providing any assistance concerning women’s roles in protection against HIV. But with real empowerment, women have the ability to do anything.” Thus, conservation organizations seem to be largely reinscribing patriarchal workplace hierarchies and values.

During almost a year of field work in the area, I never, not once, saw a woman working as a safari tour driver. When I asked male safari tour drivers about this, the response was laughter, as if women are somehow incapable of driving a vehicle, identifying animals, changing tires, or interacting with tourists. In the conservation and tourism industries, men still occupy the vast majority of income-earning, and thus breadwinning, positions. So, contrary to what Silberschmidt suggests, men working in conservation settings assert their sexual control of women’s bodies as a way of exerting their masculinity by reinforcing, not making up for a deficit in, their breadwinner status.

Second, contra Silberschmidt’s contention that impoverishment is at the heart of patriarchal performances of normative masculinity, in the conservation establishment I did not see signs of increasing impoverishment. It is not that men are particularly concerned with dominating women’s bodies so that they can make up for the loss of their breadwinner status, but rather that they use their positions of relative economic privilege to reassert and validate their masculinity. As one mid-level male conservation actor indicated, “Having sex with many women invokes a sense of pride and is about showing your strength, your power.” The economic inequality between those working in the conservation and tourism industries and

those seeking to capitalize on a small portion of that wealth facilitates this reproduction of hegemonic masculinity. As one female commercial sex worker indicated, "Here in our country, everything revolves around money. You have to give something to get something. But I have no money to give, so what else can I give? You tell me."[83]

Lastly, as Garland (2006) contends in her ethnography of subjectivities at Mweka, conservation professionals are taught and socialized to embody a particular relationship with protected areas. This relation is one of domination, in which possessing the skills to control one's environment and make it bend to one's will is very highly prized, even perhaps one of the marks of a successful Mweka graduate. This domination of environments articulates with and reinforces the domination of female bodies, both feeding off each other as parallel manifestations of hegemonic masculinity. During my time in the field, I was nearly constantly in the companionship of men. Of all the men I encountered and came to know, it was without question among conservation and tourism professionals that I witnessed the most hypermasculine identity performances. During a handful of informal conversations while out relaxing, several of my participants drew connections between the risk and skill involved in anti-poaching activities and the ability to successfully seduce women. In fact, I left with the

[83] It is crucial to note hear that not all transactional sex falls under the western rubric of commercial sex work (Hunter 2002). During the course of this research, I spoke with a handful of women working in bars in the northern safari circuit, who had engaged in regular transactional sex with men they knew, but did not identify as *malaya* [commercial sex workers]. Rather these relationships were stable and recurring, yet still involved a transactional dimension.

suspicion there may be something in particular about the socialization of conservation practitioners that promotes the exertion of dominion over both landscapes and bodies.[84]

Facilitated by relative income earning power, women's bodies become a site for the enactment of masculinity through the objectification of and hyper-competition for control over women's corporeality. As one male mid-level park manager explained:

> When we see new women come in and working in a bar, we say 'okay, let us go there' and everybody will spend their money. First, one guy will offer to pay the new woman 50,000TSH for the night to sleep with him. But then some other guy will say that he will pay her 70,000TSH, while another guy says he will pay her 100,000TSH. Everybody wants to be the one that gets to have sex with that lady first, because then they think they can have sex with her without a condom. So, men are willing to as much as 100,000TSH just to be able to say that they were the first to have sex with her because if I'm the first to have sex with her, then I am the king.

As this respondent makes clear, money becomes a way to show power and demonstrate heteronormative masculinity. This relationship between the expenditure of money and masculinity is of crucial importance in the northern safari circuit. This is a social environment where most men are removed from their familial home environments. Masculinity is not demonstrated primarily through taking care of one's family, animals, or land, but rather through displays of wealth related to alcohol and female bodies. During countless nights in the field, I would watch groups of men compete over levels of manliness through displays of brinksmanship related to who would buy the next round of beers, pay for the table's *nyama choma*, and who would pay the most to attract the most beautiful woman. Hirsch et al. (2010) present the concept of social risk as a way to understand these seemingly dangerous health choices. They argue that there are clear epidemiological risks, but that those risks must be

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[84] This parallel domination of landscapes and female bodies has been discussed at length elsewhere, (e.g. Merchant 1990 and Mies and Shiva 1993).

situated within the category of social risk, or the possibility that choosing not to openly engage the services of commercial sex workers in these settings may be met with harsh social rebukes from colleagues and others. So, the social risk of peer group sanctions for not engaging in chauvinistic demonstrations of masculinity may, in fact, outweigh the epidemiological risks of unprotected sex in decision making processes.

These dynamics was confirmed during conversations with female commercial sex workers, several of whom insist that the majority of their clientele consists of men who work in the conservation and tourism industries, because those are the men coming through town who consistently have money in their pockets. As one commercial sex worker indicated, "without these parks and tourist companies, our ability to do this would be greatly reduced. Without the park, this business would not exist, so the problem is not us, but the park and tourism." She further contended that the more spending power these men possess, the more machismo they are likely to exude and the more likely they were to engage in less safe sex, corroborating Shelton et al.'s (2005) assertion that wealth is correlated with unsafe sexual practices. As one commercial sex worker quipped, "The problem is older men from the park, wealthy men who can afford not to use them [condoms]. These men get bored with their wives, who get fat, and so they come here to find a woman not wearing a *kanga* or a *kitenge* [traditional clothing worn by women]." These women consistently indicated that often the sums of money offered, up to 100,000TSH, were great enough to persuade them to acquiescence to unprotected sex. Furthermore, in conspiratorial hushed voices, a focus group of female commercial workers unanimously asserted that the more powerful and prestigious the conservation professional, the more likely they were to use their relative financial privilege to engage in unprotected sex.

Thus, the very wealthiest, most powerful men in conservation may in fact be the most dangerous in terms of potential infection.

These women also expressed that such large payments neutralized whatever bargaining power vis-à-vis condoms they may possess. One female commercial sex worker stated: "because of poverty, you have to accept the money. That way, you can eat today and deal with death tomorrow. We are all going to die in the end, so of course you accept [having unprotected sex for a large payment] and then you just ask God for help." This gendered vulnerability, intensified by economic disempowerment, has been previously noted by Dworkin and Ehrhardt (2007:14), who wrote, "there is evidence that women and girls facing economic duress are more likely to acquiesce to sexual intercourse with no condoms when men offer more money for condomless sexual intercourse." This assertion was supported in several interviews. In one, an older male manager in a tourism hotel located next to one of these bars, who has been witnessing these dynamics for more than ten years, put it this way:

> You find somebody tells her that they're willing to give her 10,000TSH. Then the woman tells the guy that he needs to use a condom, but he will respond that he will not because he is paying her. So then you find that the guy who's paying the woman has the final say on whether or not he's going to use a condom and the woman really can't say anything. So then the lady really has no decision to make because the guy says, 'Look I'm paying you so I get to decide whether or not to use a condom.' Then the woman has the choice either to lose money or to agree. Because she is in need of money, she will likely agree. The problem is that you will find these young women coming from rural areas around Karatu to the bars to try and find work, so anybody who needs a woman has only to go to a bar. When somebody picks a woman at a bar she really has no say when she goes with them whether or not he uses a condom. If a woman tries to refuse to have sex without a condom the response is that she is foolish because he is paying. He will say that he doesn't like her and she should just go away. So he will say, 'please leave me now if you're here to teach me to use a condom.' There are very few women who will say, 'so if you don't want to use a condom, then please leave me.'

This inability to negotiate condom use is not limited to transactional sex. Outside the realm of transactional sex, gendered norms concerning hegemonic masculinity also entrench

decisions about condom use as the domain of men. All of the female conservation professionals to whom I spoke were married. Even they were clear that negotiating condom use with their husbands was very difficult. As one middle-aged married woman ranger asserted, “for us women, it is very difficult to tell a man that he needs to wear a condom. You can never tell a man that kind of thing.” Several of them had suspicions that their husbands were not faithful, but argued that to suggest using a condom came with either a presumption of seropositivity or would be met with disdain and anger. Another middle-aged female ranger told me, “if I ask my husband to use a condom, I think that my husband will kill me because he doesn't want to hear about condoms. People act as if it is like a shame to begin to use condoms.” This woman expressed in the strongest possible language that gendered inequalities, and the masculine sexual practices that such a climate facilitates, potentially increase vulnerability to HIV. In this way, even women who are being faithful are susceptible to contracting the virus by virtue of a patriarchal social structure and gendered norms concerning virility that infuse understandings of hegemonic masculinity in the region.[85]

Social Geographies as Structural Drivers of HIV/AIDS

In order to understand how economic development results in economic and gender inequalities in patriarchal social regimes and drives HIV/AIDS susceptibility, we need to account

[85] This is, of course, not to suggest that all men who work in the conservation and tourism industries are running around trying to sleep with as many women as possible to demonstrate their masculinity or that all women are faithful or powerless. I did speak with many men, who did assert their faithfulness, often couched in Christian language. These men represent a variety of counter-hegemonic masculinities, some rooted in religious beliefs, some rooted in health concerns, and other rooted simply in professed love for their wives.

for the interrelated dynamics of social geographies of vulnerability in the area. These include mobility and migration, isolation, relaxation, and a twin spatial proximity to both the highway and conservation spaces.

Firstly, the twin geographical dynamics of migrancy and mobility have been shown, in east African contexts, to greatly influence HIV vulnerability patterns. Nunan (2010) and Gordon (2005) both examine the roles of economically motivated migration amongst fishing populations around Lake Victoria in Tanzania, arguing that such migration, mediated by gendered inequality, increases HIV vulnerability. May (2003) examines migration patterns among the Maasai residents of Ngorongoro, arguing that transitory urban migration has increased viral vulnerability among both those who migrate in search of livelihoods and those who remain behind. In a dynamic eerily similar to the focus of this section, Desmond et al. (2005) show how migration patterns around a gold mining center in northwestern Tanzania produce highly vulnerable populations both for migrating gold miners and the young women who come to the gold mines in search of livelihoods.

Mlay (2000) links the migration patterns of young women trying to secure their livelihoods toward paved transportation routes and the lorry drivers with whom many of them have stable but infrequent relationships to increased viral vulnerability for both populations. Likewise, Lukalo (2000) and Obbo (1993) explore the dynamics of HIV transmission among mobile long-distance truck drivers and young women in towns along major transportation routes in Kenya and Uganda respectively. They argue that this unique social constellation of mobility and gendered poverty coalesces into a dynamic of particular salience for HIV vulnerability. Laukamm-Josten et al. (2000) argue that the mobility of Tanzanian truck drivers

presents an example of the well-established driver vector hypothesis, while Kishamawe et al. (2006) expand this analysis by documenting how not only the mobility of Tanzanian truck drivers and their sexual practices produce a group of high susceptibility, but also show how their wives and girlfriends, who are not mobile, constitute a high vulnerability group, as a result of the actions of their partners. But Bond et al. (1997:xi, quoted in Lyons 2004:176) bring structural contexts back into view, reminding us that "there is more to AIDS than 'truck drivers' and 'prostitutes.'" Social geographies of mobility, migration, and proximity to major transport routes have been explored at length in academic literature, and this chapter builds on these understandings. This research reaffirms that understanding the ways in which mobile populations and commercial sex workers articulate with the HIV/AIDS epidemic requires situating such dynamics within larger structural contexts of development, economic inequality, patriarchy, and gender inequality.

When examining mobility and migration in relation to the conservation and tourism establishment in northern Tanzania, there are two important dynamics. The first is that the conservation establishment entirely facilitates the tourism and safari industries in the area. Without several world-famous protected areas in the region, tourist traffic would not be what it is. The standard mode of tourist transportation is via inclusive safari tours, where clients book their trip through a tourism company. A representative of the company, a tourism driver-guide, usually meets the clients in Arusha city and they head off in a safari vehicle to visit a number of protected areas. Drivers spend their nights either in lodges or tented camps within the parks, alongside their clients, or in driver *guestis* (relatively inexpensive lodging in towns like Karatu or Mto Wa Mbu) that have proliferated along the main road connecting the parks. Particularly in

the case of Lake Manyara National Park, near Mto Wa Mbu, and the Ngorongoro Conservation Area, located near Karatu, in order to save the costs associated with driver-guides staying inside the park, tourism companies often have their guides stay in the nearby settlements. Indeed, the majority of the driver-guides with whom I spoke actually preferred to stay in town away from their clients. So, the driver-guides take clients, for instance, into the Ngorongoro Crater, then drop off their clients at the Rhino or Serena Lodge and then leave the conservation area, drive the 20 minutes to Karatu town and stay there, returning early in the morning to collect their clients for the drive on to the Serengeti. This style of tourism has produced a class of highly mobile men who work as driver-guides. These men spend the majority of their time far removed from their families in environments saturated with commercial sex workers and transactional sex partners which, at least tacitly, facilitate sexual practices with commercial sex workers, and earn salaries large enough to enable them to do so.

During the high tourism season, drivers with whom I spoke indicated that the norm is to leave your home and family behind, head out on a five to ten day safari and then to get a single day off before the next safari begins. As one long-time middle-aged male driver-guide explained: “the nature of our work is not very good for HIV because during the high season you can go home to your wife but it will just be for a very short period of time, like maybe one day, or maybe you never go there because you have back-to-back trips.” When these rest days, which are meant to allow men to return home however briefly, do not happen, these men are regularly away from their families for extended periods. As the same driver-guide went on to elaborate,

> This is a very big problem for driver guides who are going into the bush because very often trips take six or seven days and during this time you are not staying at your house. You are staying in

> all of these small towns around the parks that are full of women. Sometimes you will find that as one safari is ending, you will get a call that you need to take you clients to the airport and then the next thing you know, you are right back out on another trip of 10 days. All of this time, you are earning good tips and the temptation is great.

Thus, through the conjunction of several structural forces, these highly mobile driver-guides circulate within particularly vulnerable social geographies.

Furthermore, there is a psychological component to this dynamic of mobility and isolation. Driver-guides are at the beck and call of their clients and are not allowed to stray far from where their clients are: they may be allowed, in fact encouraged, to go to Karatu to save their tourism company money, but they are not allowed to drop off clients and then drive the two and a half hours to Arusha, where their family may be located. This results in a psychological sense of isolation due to extended periods of professional mobility and familial isolation. As one older male driver-guide told me, "For more than twenty days a month, we are out on safari. Most of the time you find that we are living outside and that it feels like we are very far away, deep in the bush [*porini sana*]. In a real sense, you can see that we are pretty close [to their homes and wives], but inside our heads, we think that we are very far away. That makes it easy to end up with a young woman." Among driver-guides there was a near unanimous consensus that mobility coupled with their relative economic empowerment created significant vulnerability. As one young driver-guide stated,

> Guys who are working in the tourism industry have been very affected by HIV because of their income. You can get a big tip as a driver guide. For just a five day safari, you could get a $500 dollar tip and then the next day you're starting another safari. You know, we are all human beings and we like to relax. We do not have as many kinds of entertainment as you do in Europe or America. You have swimming pools, but we do not. The thing that we can do for relaxation is to sleep with a woman and if you have money, you need to spend it.

As this driver-guide pints out, the social geographies of relaxation, notably the eating and drinking establishments in which men congregate and socialize present a setting in which

several dynamics that facilitate viral risk intersect. Thus, the structural factors discussed in this section coalesce to produce a social environment in which highly mobile tourism driver-guides, fundamentally dependent on the conservation establishment for their livelihoods, find themselves away from their wives and families for extended periods. During these periods, they are relaxing and sleeping in patriarchal social geographies awash with commercial sex workers where control over women's bodies is viewed positively and, as both they and commercial sex workers point out, they have disproportionate influence over condom use. It is this constellation of structural forces, more than personal depravity or irresponsibility, that contributes to the spread of the epidemic in the area.

A related migration dynamic is the movement of women from rural areas to these tourism centers in search of livelihoods, which, as discussed above, often means transactional and/or commercial sex due to the lack of opportunity for alternative employment. Towns, including Karatu, Mto Wa Mbu, Makuyuni, Kibaoni Tarangire, and Rhotia are located along the major road and consequently are transport and trade centers, connecting different regions and districts. Though movement has already been addressed above in relation to both economic inequality and gender inequality, it needs to be discussed again here as it is directly implicated in geographies of vulnerability. As one mid-level female conservation practitioner, who has spent years working the area, observed:

> You find that these women know that this area is a center of tourism and that there must be a lot of driver guides and people working in parks here and they know that these are the people with money here. They come here to get a part of it [the money] for themselves. Before they only came from villages around Karatu, but now things have changed and you can see these women coming from all over the country to Karatu because they think this is a major center of tourism.

Women know that the men working in conservation and tourism are making relatively good money and, as a result, come to the places where they know such men are to be found in search of a small part of that money.

The second significant social geography implicated in the progression of the epidemic along the northern safari circuit is extended isolation in the national parks.[86] While driver-guides are highly mobile, conservation actors are often much the opposite. Those who work in protected spaces, even those directly adjacent to settlements, are often isolated within the park for extended periods of time. One young male ranger put it this way,

> When you are inside this park, it is very isolated. We are vulnerable because of living inside the park. We are not living with our families. They are somewhere else because our children need to attend school. If you are not living with your family, your wife, it is very easy to be tempted, so as rangers, as people who are living inside the park, I think this is a very big problem that contributes to HIV.

Like driver-guides, conservation professionals earn relatively large incomes, so when they do get to leave the park after extended periods of isolation, many contend that colleagues seek the company of commercial sex workers or have on-going transactional sex relationships as a form of relaxation. One young male park ranger said, "Some of us [rangers] will have worked there [inside the park] for maybe even three months without leaving. So when they do manage to leave, they don't have any eyes [*hawana macho*], so they will just take the first lady that comes along. This is one of the ways that people we work with get HIV." It is inappropriate to

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[86] This dynamics is slightly different inside the NCA, where more than 60,000 pastoralists live and in which are located several small towns. Thus, within the NCA, there is increased access to social geographies of relaxation for many. However, for rangers posted to remote ranger stations, which are far removed from such settlements, the dynamics are remarkably similar to those found in national parks, which are completely devoid of human habitation other than those professionals charged with its protection.

suggest that such are the sexual practices of all men who work as conservation professionals. However, it was something I was routinely told, both by those who work in the conservation establishment and by those women whose services they seek out. High levels of distrust of and dislike for condoms, coupled with normative constructions of hegemonic masculinity that position unprotected sex as more masculine and provide men with a disproportionate amount of negotiating power regarding condom use, facilitate a social context of high vulnerability for male conservation actors when they do get to leave the parks.

A senior Human Resources employee, who oversees much of the HIV/AIDS work done by the national park service, indicated that the organization does its best to locate employees close to their homes to attempt to neutralize these dynamics of isolation and temptation, yet with only a few exceptions, the conservation professionals with whom I spoke were not living and working in close enough proximity to their families to be able to see them more than once a week, at best. Many indicated that it had been far longer than a week since they had seen their families. Because employees of TANAPA come from across the country, many conservation professionals working in the northern safari circuit are very far away from home. Even when they do have time off, if their family is on the other side of the country, transportation logistics and long travel times make visiting their families difficult at best.

Thus, instead of being able to regularly visit their families, many conservation professionals find themselves spending time off in the social geographies of relaxation near their workplaces, with plenty of money, and no wife in sight. As one mid-level male manager indicated,

> A lot of the people who are dying are those people who are working in the field, for example rangers, managers, and drivers. You have your duties and maybe you will be in the field for ten

> days and then you will be paid your allowance, which can be 50,000TSh per day. So after ten days you would get 500,000TSH. With that money you can have a good time. You can stopover in one of these small towns and since you've been in the field for ten days, you want to experience a little …. You want to take a shower and have a nice massage and then things happen from there.

This manager shows us exactly how political economy of the conservation establishment interacts with a dynamics of isolation to shape vulnerabilities.

The last fundamental dynamic to be addressed in this section is the influence of the paved road, which runs from Arusha into the NgoroNgoro conservation area and passes quite close to Tarangire National Park and adjacent to Lake Manyara National Park. A large number of respondents spoke of this highway as an element that facilitates the transmission of HIV. This finding corroborates that of Lyons (2004), who determined that HIV/AIDS rates were higher in roadside towns and villages and decreased the further from such roads one went.

This main tourist road is tarmac and was funded, in part, by the Japanese government to facilitate tourism development and conservation efforts. While the road does expedite the movement of tourists and is credited as the primary infrastructure development that has increased tourism traffic and revenue, it also brings with it and facilitates the dynamics addressed above. Respondents often spoke of the interaction among different groups of people, with differing histories and cultural understandings, coming and going along this highway. As one young male field ranger asserted,

> I think the big problem is that Karatu and these other small towns are on the main road and are a destination place. It is a tourism center and also people who work in the park are stopping here. It is a stopover for drivers. In any stopover, people like to socialize and get drinks. When you are socializing it depends on what kind of socializing you like, but you can see that most of them are liking [sic] ladies. This is the situation with HIV here. The most dangerous thing for us is this road.

This ranger connects the growing success of conservation in the area to the dangers associated with the road that facilitates that success, demonstrating how conservation and tourism-related movement are implicated in how the epidemic is manifested and experienced on the ground. Several long-time residents of the area indicated that the road was paved from 2002-2004 specifically to accommodate the growing demands of the wildlife tourism industry and that this corresponds with when they recall issues surrounding HIV/AIDS to have worsened.

This section and the nature of the problems that accompany, facilitate and are facilitated by the spectacular rise of wildlife conservation and tourism in the area was best summarized by a young male conservation manager, who contended, "What is happening in this area is because of conservation and tourism, nothing else, nothing more, because the source of almost all employment here is conservation and tourism. All of these problems, it's not that I am condemning tourism, because it also has very positive impacts when it comes to socioeconomic development, but it also has the other side of it, which is HIV." Most conservation professionals in the area situate the drivers of HIV/AIDS within the structural dynamics presently championed by current conceptualizations within the social sciences. Standpoint theory suggests that this should be the case because the combination of structural forces that most conservation professionals argue shape HIV vulnerability are the same large-scale social forces that shape their everyday lived experiences.

Conclusion

By way of concluding this chapter, I present interview data from three upper-mid-level conservation professionals, who explicitly frame individual behavior and alcohol consumption

within the structural factors discussed above. All three were diploma graduates of Mweka and offered a synergistic explanation of HIV/AIDS drivers that allowed room for the salience of structurally situated behavior in context, thus sidestepping the binary representation of epidemiological drivers presented above. These informants self-reported intermediary social standpoint positions in which they were freer from structural constraints than most of their colleagues, but were not at the very top of the conservation hierarchy. As a result, they were explicit that structural forces did constrain their choices and shape their understandings. These respondents incorporated the individual choices made under the influence of alcohol within structural dynamics related to the availability of the financial resources necessary to spend time at bars drinking. Thus it is not so much irresponsible decision making on its own, but rather it is the availability of money, particularly for conservation professionals who earn substantial incomes within a patriarchal social environment made all the more precarious by social geographies of vulnerability, that facilitates alcohol consumption and in turn increases HIV/AIDS vulnerability. As one young male upper-mid-level conservation scientist commented, "Because you have money, you can go and drink. After drinking, you know, you lose good judgment and you may even forget a condom. So you find people are getting HIV because of money and drinking despite that they know and are aware of it." This important linkage between socioeconomic status and the ability to consume enough alcohol to impair judgment underscores the contextualized nature of alcohol consumption because socioeconomic status is a structurally situated phenomenon. As the other insightful young male conservation professional asserted, "At the same time that this goes to personal behavior, I believe your personal behavior is definitely influenced by your environment and how you grew up and that

there are other external factors that can twist or shape your behavior." Their variable yet relative privilege within socioeconomic hierarchies provides most conservation workers with access to larger pools of disposable income than other area residents. The final older male intermediary conservation professional summarized it this way:

> I would say that a big reason [that HIV is an issue in towns around the northern safari circuit] is the people that are working in conservation areas. These people have money, really. You just go out in Karatu to get a beer at dark and you'll see these luxury vehicles coming to the bars and the bosses coming here to drink and find ladies. So they can go get drunk because they have money to spend. Then they go and do stupid things and I think this is not good behavior.

If, as a group, conservation actors frequent bars more than other professional groups and are able to do so via their placement within class hierarchies, the logic of alcohol consumption as a fundamentally individually motivated behavior breaks down. In this way, even this epidemiological driver of HIV/AIDS, often imputed to individual irresponsibility and poor personal behavioral choice, can be examined more productively through the lens of large scale politico-economic structural forces.

Thus, while a small group of respondents, those who appeared to most fully embody the individual-centric logic of conservation, relied on their privileged standpoint to single out individual actors and their poor decision making and over-consumption of alcohol as the main drivers of the epidemic, others were more circumspect and linked these seemingly individual behaviors to larger structural forces. What makes this important is that actors who occupy the most prestigious posts in these conservation spaces and argue that individual behaviors are responsible for the spread of the epidemic are also those most likely to have sway in decision making processes regarding what kinds of HIV/AIDS interventions, awareness trainings, and prevention programs are implemented in protected areas. Thus, as I demonstrate in Chapter

Six, it is little surprise that the programs implemented also mobilize the importance of individual responsibility and behavior, even as most people in these environments intelligently argue that such a focus obscures salient epidemiological drivers. Since most respondents did not share the individualized interpretation, the stage is set for the problematic introduction of programs that do not address the structural forces most informants place at the center of the epidemic and this compromises the potential impacts of such programs.

In this chapter, I have used understandings of feminist standpoint theory, augmented with conceptualizations of conservation subjectivities, to examine the perceived causal forces that conservation actors in the northern safari circuit attribute to the HIV/AIDS epidemic. Among a handful of very highly educated conservation professionals, who hold top-level conservation posts, there was a tendency to frame the epidemic primarily in individualistic terms, citing a lack of personal responsibility, poor behavior choices, and the personal decision to over-consume alcohol as the primary causal drivers of the epidemic. This individual-centric perspective is a logical extension of the standpoint position that (a) emerges from prestigious professional appointments rooted in the pre-eminently successful embodiment of the logic of conservation, (b) emanates from the West, (c) is taught at wildlife training institutions in the country, and (d) mobilizes emergent subjectivities that center individuality and meritocracy. In contrast to this group, there was a second, much larger group of respondents, who asserted the centrality of the consumption of alcohol to viral transmission but were careful to situate such dynamics within larger socioeconomic structures. These wildlife professionals, who made up the majority of my respondent pool, argued that it was not so much individual behavioral shortcomings or alcohol consumption, but rather structural forces that lie at the heart of the

perpetuation of the epidemic in the area. This interpretation mirrors these respondent's assertions that their own lives, experiences, and choices are constrained by the same structural forces they assert are driving the HIV/AIDS epidemic. Collectively, they expressed that, while personal behavior certainly plays a role in vulnerability, susceptibility to the virus is shaped more powerfully by macrostructural forces including development, economic and gender inequalities, and social geographies: as one middle-aged male ranger bluntly stated, "These problems are not individual."

The final three respondents I address provided explanations that fall between the two previously mentioned groups of respondents, argued for a combination of both personal agency and structural constraint. That is, yes alcohol consumption can impact choices regarding safer sexual practices, but this consumption cannot be explained, within the conservation establishment, without an acknowledgment of the relatively large salaries conservation professionals earn, which facilitate their relaxation at bars around protected areas. These bars are largely the social locations where intoxication occurs, followed by the search for sexual gratification. Relatively large salaries for conservation actors are accompanied a particular status within class hierarchies and thus posses an intrinsically structural dimension. Without such class privilege in conjunction with a professional socialization that valorizes risk taking and domination, this dynamic of going to the bars, spending money, becoming intoxicated, and then making potentially problematic sexual choices with much poorer women, themselves in the bars in search of livelihoods or maintaining a particular living standard, may very well not exist in the same way.

Now that this chapter has amply explored the ways in which conservation professionals perceive and articulate the reasons *why* HIV/AIDS is an issue in the area, the following chapter will examine *how* the epidemic is materially and discursively impacting the conservation establishment in the region.

CHAPTER FIVE

The Materiality of Discourse: Impacts of HIV/AIDS in Northern Tanzania's National Parks

Introduction

Conservation is in crisis. Such is the story told by those who work in and around conservation in the northern safari circuit of Tanzania. No longer do the threats emanate solely from uncooperative adjacent communities, fires, changing weather patterns, lack of funding, obtuse national political apparatuses, or declining wildlife populations. Now, emergent discourses are circulating, framing a new risk: a virtually undetectable silent killer that is ravaging protected areas, decimating workforces, and impacting the very objects of protection conservation professionals pledge to preserve. In both empirically observable, straightforward ways, but also in more complicated discursively mediated ways, which also result in embodied consequences, HIV/AIDS has emerged as the new face of risk for conservation. In the eyes of those who have dedicated their lives to the calling of wildlife conservation, there is a widely held consensus that HIV/AIDS is significantly impacting nearly every facet of the conservation establishment in northern Tanzania. Having examined the frictions between individual and macrostructural forces that conservation professionals perceive as the drivers of the epidemic in the previous chapter, here I explore the impacts of the HIV/AIDS epidemic within the northern Tanzanian wildlife conservation establishment.

In order to fully examine the myriad disease-related impacts to the conservation establishment, I draw on the HIV/AIDS conservation nexus literature and the distinction between various aspects of the conservation establishment presented in the Introduction: organizations, actors, processes, relations, and objects of protection. Much of the data

collected as part of this project serves to reinforce and validate these largely conservation-establishment produced assertions of the varied impacts of HIV/AIDS in conservation spaces. However, during the course of comparing my findings with those from earlier researchers, I was left with a series of impacts to the conservation establishment that did not fit within existing schema: impacts not based in things that have already happened, but rather emanating from what we might think of as understandings of risk.

In this chapter, I use the notion of risk as an over-arching category to examine the loci of impacts that are not always as visible or straight forward as quantifying the number of employees who have been sick or died, the financial toll of HIV/AIDS-related medical care, or detailing the loss of experience-based knowledge which accompanies the passing of a longtime conservation professional, for instance. In each instance addressed in the pages to come, I argue that risk, as examined here, has three fundamental components: (a) the perceived expectation of some potential negative impact or outcome, (b) a normative aspect wherein risk is mediated by some type of value judgment, and (c) it is an effect of discursive constructions which then fosters particular kinds of action and behavior. What shifts throughout the chapter is how such risk perceptions are contextually-situated, the causal dynamics at the heart of the emergence of various risk perceptions, and the practices carried out in response to such perceived risks. Therefore, in this chapter, risk serves as a heuristic device to examine diverse ways in which the conservation establishment is being further impacted by HIV/AIDS and perceptions of the epidemic. Put another way, there are equally materially real, embodied consequences of discursively situated risk related aspects of HIV/AIDS, which affect how certain

conservation processes unfold, relations between workers within conservation spaces and adjacent communities, and the very objects slated for conservation protection.[87]

The multi-faceted conceptualizations of risk mobilized in this chapter mirror the complex ways in which risk has been theorized within the social sciences. Because there is not a single social scientific conceptualization to risk which facilitates an comprehensive explanation of the variegated dynamics addressed in this chapter, I draw on three theoretical conceptualizations of risk, each of which help us to understand particular aspects of the ways in which HIV/AIDS is impacting the conservation establishment. Aspects of each of the theories employed in this chapter intersect to provide an explanatory framework through which to examine how particular contexts and discourses produce understandings of risk that result in negative outcomes for the conservation establishment. However, the use of these various theoretical frames does not result in equivocation or the conflation of such dynamics or theoretical perspectives. Rather, I use these discrete conceptualizations of how risk functions to illuminate the complex pathways through which conservation processes, relations, and objects of protection are being influenced by the epidemic. Thus, in this chapter, I present data that both confirm the findings of previous research and draw on several competing theories of risk to suggest new ways to understand and examine the diverse impacts of the HIV/AIDS pandemic for conservation.

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[87] Following Escobar (1996:45), I reject the artificial separation of materiality and discursivity, "there cannot be a materialist analysis which is not, at the same time, a discursive analysis." Thus, while it may seem otherwise, I am not positing a concrete distinction between that which is "real" and that which is discursively produced, as discursive productions come to result in embodied, thus real, consequences. This heuristic distinction is simply made to highlight the origins of such impacts, as of course, the relationship between discourse and its experiential aftershocks is always a circular one.

Part of my argument in this chapter is based on the fact that the work examining the impacts to the conservation sector that precedes this work lacks any substantive theoretical or conceptual framework. Because this work was overwhelmingly crisis-driven, there was no need or justification for informing the work with a theoretical frame. Rather, the point was simply to identify all of the readily observable impacts to the conservation sector in the hopes of finding ways to quickly and effectively mitigate such impacts. While an implicit focus on risk is foundational to all of the work that has addressed HV/AIDS impacts within the conservation establishment, such a focus is never made explicit. The tension between the omnipresence of ideas of risk regarding HIV/AIDS in conservation settings and the relative absence of any explicit discussion of how such perceptions and conceptualizations of risk may actually interface with and impact conservation is a central motivation for this chapter. Employing a conceptual framework, relying on three theoretical framings of risk, enabled me to look past these most apparent impacts and identify and explore a series of impacts about which the literature has thus far remained silent. Consequently, in this chapter, I first relate my research findings to the existing body of literature, showing how I also found a host of material, observable, empirically measurable impacts to the conservation establishment. I then move to a presentation of the discursively grounded impacts to conservation that are predicated on three theoretical conceptualizations risk, which I examine. After introducing these three framings of risk, I demonstrate how these conceptual frameworks facilitate the exploration of epidemiological impacts which result from the possibility of embodied outcomes and impacts, particular calculated practices designed to mitigate the likelihood of such outcomes and impacts, and the intersections of group moral boundaries and understandings of stigma-related risks. Doing so

helps to show how phenomena which might otherwise have been overlooked, and indeed have been overlooked thus far in the existing literatures, are shifting dynamics within the conservation establishment.

Material Impacts of HIV/AIDS in Tanzanian Conservation Settings

Although not demarcated as such, the literature discussed in the introductory chapter identifies a variety of classes of impacts of the epidemic within conservation spaces: impacts to organizations, impacts to individuals within those organizations, impacts to the ways in which conservation practices unfold, impacts upon relations with communities surrounding conservation areas, and impacts upon flora and fauna. Thus, I begin within the realm of observable material impacts and address a handful of impacts for several of the descriptive categories just mentioned. This section corroborates and validates the important previous studies that assert this central intersection of HIV/AIDS and the conservation establishment (Cash 2007, De Souza et al. 2008, DeMotts 2008, Dwasi 2002, Mauambeta 2003, Oglethorpe 2005, Oglethorpe and Gelman 2007). Because it is not the central argument of the chapter, I address the material impacts of the HIV/AIDS epidemic in an abbreviated fashion, only to re-establish the validity of earlier findings.[88] The outcomes of studies reported over the past ten years continue to be central to the thinking of those currently engaged in conservation activities on a daily basis.

[88] For each material impact this section confirms, I chose a small number of representative examples from an extensive collection of available data. Each of the impacts addressed in this section have been previously identified in the HIV/AIDS conservation nexus literature discussed in the Introduction.

Material Organizational Impacts

Among the most important reported observable impacts to the conservation establishment were organizational-level impacts, primarily (a) illness-related absenteeism and reductions in employee productivity, (b) the loss of experience-based knowledge and institutional memory, (c) negative consequences for inter-organizational mentoring, leadership, and morale, and (d) financial impacts. As one senior national park ranger indicated, "HIV is affecting national parks. HIV is a disease and when any worker or staff member gets it, I think it affects work performance. When some of your employees are suffering from HIV then they cannot perform their job duties, so HIV has affected my job."

According to conservation professionals in northern Tanzania, absenteeism and reductions in employee output are the most noticeable impact of HIV/AIDS to workforce productivity in these settings.[89] As people become ill, they simply require time to seek medical attention and recover. One elite protected area manager remarked, "When somebody is sick, it means that they have to be taking time off work to go to the hospital and to receive treatment every day or on a regular basis and that means that the workload within the organization is distributed differently, so the workers that are left then have to work harder. The impact of absenteeism is very problematic." As a senior national park ranger elaborated, "At one ranger post we had five Rangers and the two of them died from *UKIMWI*, so we were left with three and that reduced the manpower of the workforce. That means you have reduced the ability of your workforce to conduct the work." When protected areas are starting from underfunded

[89] None of the protected areas, among whose employees these interviews were carried out, were willing to share absenteeism rates due to potential breaches of confidentiality.

positions with overworked employees, the loss of members of a specialized work force, such as rangers who patrol the park, can have serious deleterious effects.

This productivity and illness-related impact is likely significantly lessened by the use of ARVs by seropositive employees. However, levels of stigma and secrecy (confidentiality literally translates in Swahili as *siri,* "secret") remain powerful enough that only two of my respondents were aware of anyone using ARVs in their respective organizations. One of those participants, a middle-aged female ranger told me, "For the workers some of them have already been affected and they were getting very sick and were likely to die but now that they are on these medicines [ARVs] they're returning to health and are continuing to work." So, while it is safe to presume that there are very likely employees who are maintaining productivity levels through the use of ART, as reflected in discussion with conservation professionals, it is nearly totally invisible: "people who are on ARVs here take them in secret. Some even travel to Arusha or Moshi to get them, so that no one here will know," one senior conservation professional informed me. Stigma, thus, is a central factor in the acknowledgement, or lack thereof, of the presence of the virus. As a result of these dynamics, ARV use has little, if any, impact on the ways in which conservation professionals perceive organizational HIV/AIDS impacts

In conservation environments where the success of operations is in no small part dependent on understandings and knowledge learned through on-the-job experience, the loss of an employee with significant experience-based understandings further compounds the loss. A senior conservation organization employee told me, "Last year at least four workers that I know of perished from HIV in this park, which is just too many. Two of those were managers and two of those were rangers. Those are people with training and experience and that

experience is very hard to replace." When senior park employees become sick and unable to perform their job duties, their work-based experiential knowledge is lost and the loss of this form of institutional memory has direct impacts not only for the individual who is ill and suffering, but also for other employees and the institution as a whole.

Additionally, rangers, in particular, spoke of the importance of interorganizational employee mentorship:

> HIV did affect us because one of the victims at that time, may his soul rest in peace because he's passed away now, he was a ranger, a senior ranger. Now being a senior ranger, you also have a group of people who are underneath you and he was a very hard-working guy and was conducting very effective patrols. And that is why I say that I believe it affected the park because losing such a person, an experienced guy, a very efficient worker, and he'd been here for years. By that time he had been here for more than 10 years, so now you have a lot of experience. As a new guy in the system, you know, at that time I was expecting to learn a lot from him and these other new workers also were expecting to learn a lot from him. Now think about when you lose a person who's been here for 10 years, think about him, how much he knows and how much you can learn from such a person that now you will never learn.

Loss of experienced-based knowledge threatens to impact the ongoing success of conservation initiatives because (a) it simply cannot be replaced with new employees or additional training, but can only accrue over time and (b) it is something that can be transferred through a mentoring process with long-time senior employees, but not if they are falling ill and are unable to work.

Not only does the illness or death of an experienced employee impact overall work productivity and the ability to mentor incoming workers, but it also potentially creates a leadership vacuum, as the ranger quoted above asserts. As a senior conservation actor succinctly stated, "If you come from the outside, there are leaders, like trainers for the newcomers, and now you may have lost their knowledge and skills, the wisdom that the newcomers do not have." Because the success of wildlife conservation in protected areas is

largely experience driven, the illness or death of experienced workers not only impacts day-to-day operations, but also has more profound potential impacts for the accumulation of institutional memory and organizational resilience.

A handful of senior-level conservation managers argued that, as an aggregate, the kind of compounded and cascading impacts discussed above are straining overall organizational resilience: organizations experience the loss of deep institutional memory, the collective experiences and knowledge possessed by the group as a whole. One high-level protected area manager likened the loss of institutional memory to the erosion of the organizational base:

> You lose these good teachers and their experience, who have been here for quite a long time. Also the way I perceive it, it disturbs the normal structure and function of the organization as well, because let's say you have workers and you build a sort of a base, a strong one, now think if you start losing them one by one and these newcomers expect that if the base is very strong, they will also become stronger. Now we are losing all these people, their memories and experiences, and to me that destabilizes the normal functioning of the organization.

There was consensus among high-level conservation actors that both current and potential longer term impacts of HIV/AIDS constitute a serious threat to the very heart of how conservation organizations are structured and function.

This idea surfaced time and again as a trope through which people expressed their hopes for growth, stability, and continued success. It came to function as a catch all phrase for a cumulative impact on organizational resilience and stability. As one person becomes unable to work, conservation organizations can work to fill the void created. However, as the number of impacted workers increases, there may be an organizational tipping point, wherein the collective severity of the impacts causes pervasive negative consequences for the organizational development workers speak of needing and desiring. One ranger said, “Those of us who work for this park want development in the communities and also inside the

organization. We need development, but you'll find that some people are not able to facilitate development because of illnesses that come from HIV. Instead, you find that he is coming to be a burden to the organization and other workers."

In addition to the impacts of HIV/AIDS upon workforce productivity, experience-based knowledge, and institutional memory, there are significant financial costs associated with HIV/AIDS in conservation spaces. There are three primary financial impacts that were identified in the interview data and correspond to the impacts reported by previous scholars: (a) those costs associated with medical treatment, ARVs (even though very few people, if anyone, in the park may be aware of this ongoing expense), and absenteeism among seropositive employees, (b) the training and education investments lost as employees become ill or pass away, and (c) the financial expenditures associated with the recruitment and training of new employees. There is not only the cost of the actual treatments that seropositive individuals need, but also built-in costs associated with absenteeism due to time away from work, the transportation costs associated with taking sick employees from often quite remote locations to health care facilities, and the additional absenteeism and salary costs associated with the healthy employees who must serve as drivers to get the sick employee to out-of-park health care centers, though the distances to heath care facilities varies greatly depending on the park and where in the park the ill employee is. As such, the financial implications of treatment for a sick employee are greater than they might at first appear to be.

The legacy of *Ujamaa* policies which protected workers and workers' rights has been extended to the realm national laws protecting the rights of those who are seropositive from having the further compounding negative impact of being fired. When an employee becomes

ill, their job duties are scaled back and they continue to collect a salary. Even in cases where the employees are completely incapacitated and unable to perform any work duties, they still receive remuneration. This point is clearly made by the following exchange with a senior ranger: "[What happens if you get to the point where you can't work as a ranger anymore, your health is bad and you are weak and you just can't go out on patrol?] In the conservation profession, nothing, they would do nothing about you. You are there and you are sick and you are just waiting for your day. They do not terminate you because you are sick, so they keep paying you even though you cannot work." Particularly in the case of terminal illness, managers complained that HIV "affects the way we spend money because, even if they cannot work, workers must be paid." While I believe, from a human rights perspective, this is the appropriate course of action, it certainly does not ease financial allocation strains or burdens within conservation organizations.

There are also significant financial investment losses associated with the loss of employees, which the organization has paid to train. For those working in the conservation sector in northern Tanzania, some post-secondary degree in wildlife conservation, management, or tourism is essentially requisite, either from Mweka, located in Moshi, Tanzania, or from the Pasiansi Wildlife Training Institute, located in Mwanza, Tanzania.[90] Of the two, Mweka enjoys a far greater reputation and the costs of a single year of tuition, room, and board for a Tanzanian student is more than $3,000 USD in a country where relatively well-off

[90] Conservation organizations typically pay for such training after extracting either promises of a several year commitment or, alternatively, they will not send you for further study at Mweka or Pasiansi until you have spent a requisite amount of time working within the organization. Such funds come from their general operating budgets.

citizens have an average per capita income of approximately $1500 USD a year (CIA 2011). Typically conservation organizations pay the educational fees for their employees, viewing it as an investment that will generate returns when the employee returns to work, so to lose an employee, whose formal conservation training was paid for by the organization, represents a significant loss of investment.

Furthermore, these organizations have to pay for recruiting, hiring, formally educating and then training replacement workers when an employee becomes unable to perform her job duties. the costs associated with the recruitment and training of replacement employees add up quickly. One senior conservation manager stated, “To hire a new individual and train them is financially difficult because it takes a long time, up to two years [the length of time an Advanced Certificate course at MWEKA takes], and costs a lot of money, which means it makes the daily activities of the park more difficult to perform. While you are doing all of this training, nothing is taking place, like patrolling.” Clearly, it is necessary for conservation organizations to pay for the professional development of employees, so that people have all the required skills and education to run a protected area. However, paying for such training multiple times creates a serious financial and time drain for organizations. Additionally, there are other hidden costs built in to the recruitment process. As one senior national park scientist pointed out, “You have to advertise in newspapers, maybe even advertise for as many as six positions, which is expensive, so at the end of the day it is costly for the organization.” This is not to suggest that HIV/AIDS is at the root of every employee who becomes ill and those who need to be recruited and trained to replace them, but interview respondent after interview respondent argued that

HIV/AIDS has accelerated the speed at which this employee replacement process takes place and the costs associated with doing so.

Material Impacts for Individual Conservation Professionals and Their Families

Although perhaps the most devastating impacts of HIV/AIDS occur to individual conservation actors who become ill, and their families, respondents also noted secondary effects of HIV infection and death from AIDS-related illnesses for healthy conservation practitioners: the shouldering of additional workplace burdens by healthy conservation professionals to compensate for ill colleagues, the psychological impacts of watching your coworkers and friends become ill and/or pass away, and the impacts of the epidemic upon the families of sick and deceased workers that affect fellow conservation workers.

Although there is a tendency to focus our gaze on those who have been infected, even those who are not seropositive complained of experiencing direct effects of the epidemic. As the productivity of some workers decreases due to illness, the work load of others increases. One senior-level ranger indicated:

> We are few, so you'll find that if you have two people who are HIV positive in the camp and the total number of rangers is 5, the remaining three will always be doing the difficult jobs. You end up always sending them to do the difficult work. So, of course, this will not paint a good picture and will lead them to thinking about why they are being overworked. For instance, when we hear there are poachers with guns around here, why is it always these three guys who will be in front, while this other guy always remains in the camp. For sure, that creates tension. They get the idea that perhaps these other guys [who do not have to go out and perform dangerous or difficult tasks] are your friends and that is why they do not have to go out for the difficult jobs.

Those employees who remain healthy are, in fact, expected to perform additional job responsibilities, which can result in tension and dissatisfaction among the organization's most productive employees.

Another way in which individual conservation actors are impacted by consequences of the HIV/AIDS epidemic is through the psychological response that accompanies death of a close friend or co-worker. It was common for interviewees to use relational descriptors like brother, friend, family to talk about their relationships with co-workers. The use of such community-centric identifiers reinforce the continued salience of communal identities, described in Chapter 3, for the ways in which conservation professionals understand themselves and their worlds. A mid-level conservation scientist told me, "We have lost a lot of our brothers and friends because of HIV here in the park." Another, more senior conservation manager asserted that there are consequences for conservation implicit in this psychological response:

> When you're talking about friends in Africa, everybody who works with you is already your friend. Because we know each other and work together we are friends. But, personally, yes, I have lost a lot of people, really, and it has a huge impact on you mentally and emotionally. If you're talking broadly about friends, yes, I have lost a lot of them. But even if you're talking about my close friends, I have lost some. I even lost one of my very best friends that I started to work with and he only worked for two years before he died. That made it very hard for me to continue working here.

Here we see the interrelated nature of all of the impacts addressed thus far. Illness leads to a reduction in the capacity of an employee to perform a job properly. Often, then, the worker becomes completely unable to work, at which point there is a physical reduction in the size of the workforce, which in turn has financial consequences, as well as psychological impacts for those who have suffered through the death of a close friend and colleague. Furthermore, professional life can become more difficult in the wake of a death and can even make basic job duties difficult to perform.

Individual conservation actors, who remain healthy, experience yet another material impact of the death of their coworkers: they become an essential social support network for

the family of the deceased. When their relatives are employed in a field such as wildlife conservation, where people are jointly performing dangerous and risky jobs that promote bonding and are earning relatively large salaries, or salaries that are at least perceived as being large by others, affected families are likely to look to those workers for support. As one middle-aged long-time male ranger told me:

> [After the death of a park employee who was a breadwinner for the family] the family is now going to be in trouble …. from our point of view, culture has the power and in our culture that means you help each other, especially when a person has passed away from something like HIV. You, as an individual, if you are friends with the person who died of HIV and you were working together and living together in the bush, obviously this is going to affect you because the family is going to ask you for some support, especially for schools and maybe for food. So that is something else that also affects the people who are still left in the park.

Being asked to provide money for school fees or food was a common experience of those workers who had personally lost friends and coworkers to HIV/AIDS. Although the cultural norm of financial gift giving in times of death is a common one throughout Tanzania, interview respondents indicated their belief that they are consistently targeted for increased financial support because of the perception that they make a lot of money. Conservation professionals also contended that, due to the close nature of relationships formed from working in close quarters and demanding environments, they also provided non-financial social support to the families of their deceased coworkers.

> HIV definitely changed my relationship with his family because after he died his family has had problems. Because I was a friend of their father, in one way or another, the children will follow me and make me like their father, so there is an impact because of the loss of their father. Also because of the culture of Africa, you take care of your friend's children and so, of course this has impacted and changed me. If somebody close to you dies of HIV, then you find that you are a part of it.

Consequently, conservation practitioners who remain healthy serve as financial and social support networks, i.e., safety nets, for the families of their deceased coworkers. As these

respondents make clear, it is important to consider not only the technical and financial costs of HIV/AIDS within conservation settings, but the emotional and psychological costs as well. The epidemic is impacting not only those who have contracted the virus, but also their still healthy colleagues. By examining these secondary impacts, we come to see that HIV/AIDS is profoundly affecting the success of conservation organizations and the lives of those who work in them.

Material Impacts for Conservation Processes

HIV/AIDS impacts not only organizations and actors, but also quotidian conservation practices and processes, such as how patrols take place. Fundamentally, conservation is an enterprise involving action: conservation actors deliberately engage in activities that promote a particular relationship to the environment, aimed at the maintenance of certain landscapes, flora, and fauna. For a number of reasons, much of this work involves making sure that protected area boundaries remain intact, that communities living adjacent to these spaces are not utilizing them in ways contrary to the legally codified logic of conservation, and regulating the movement of people and goods along the borders of these protected spaces. As a result, conservation spaces rely heavily on park rangers routinely patrolling their boundaries to observe whether the protected space is being used, or more often not used, in compliance with the logic of conservation. As one senior-level protection officer indicated,

> [HIV/AIDS] affects my job because when somebody is sick with HIV … they do not have the ability to work efficiently. You know, we have different mountains that we have to climb and we have to be looking for poachers. You cannot stop a butcher by telling them to stop, you know, you have to be able to run after him. The poacher will run so even you have to be able to run and in that case you won't be able to run because you have already been affected so you are unable to breathe heavily. HIV has changed working in the park because it reduces the ability of doing patrols.

Thus, HIV is interfering with the efficacy of one of the activities most fundamental to mainstream conservation: antipoaching patrols. Another upper-level national park manager asserted that the HIV/AIDS pandemic has increased unauthorized harvesting of flora and fauna by members of adjacent communities. Cell phone technology has allowed animal and plant poaching to become more efficient, because poachers can monitor the positions of rangers and relay such information to accomplices. In addition, members of communities located adjacent to the park are able to monitor both the illnesses and locations of rangers. The combination of these two pieces of information, through the easy communication of cell phone technology, exacerbates the difficulty of protecting against resource extraction within park boundaries. As this park manager indicated:

> Now these days everyone has cell phones and they are watching to see where rangers are. So one day they see that on that day the rangers are not around so they call and tell people that they are not there. Like right now, we are talking but there could be some people fishing inside the park or collecting firewood because they know that the rangers are not there. I think this problem is made worse by HIV and AIDS because when you have sick rangers, who cannot patrol effectively, it is easy for people who live in the community to see this and know they can take more resources out of the park because just a few rangers cannot cover the whole park.

Because of the centrality of antipoaching park patrols to the conservation enterprise in resource poor settings like northern Tanzania, the inability for rangers to carry out these processes in maximally effective ways could severely undermine the long term success of conservation in the region. In fact, in some cases, it is not simply that conservation practices are carried out less efficiently, but that they are not performed at all. The same conservation manager continued, “Maybe it is a ranger who gets sick and he will not be able to go to perform a certain duty, like a patrol, which is hard work to get from one place to another place. It can

mean walking all day and all night without stopping and he cannot do that. So you will find that that kind of patrol simply is not done."

Material Impacts of HIV/AIDS upon Conservation's Objects of Protection

Conservation is overtly about the maintenance of what appear to be unspoiled landscapes and the protection of the flora and fauna that reside there. In a surprising twist, research indicates that even these most manifest objects of protection are being impacted by the HIV/AIDS epidemic. Two such impacts are addressed here: (1) how poaching-as-a-survival-strategy has increased under the burden of the epidemic as rural communities shoulder increasing burdens as a result of wage earners succumbing to the epidemic and (2) how timber for coffins and cooking is being extracted from protected areas at elevated rates, fueled by the HIV/AIDS epidemic and facilitated by the decline in patrolling as discussed in the previous section.

Earlier research documented the ways in which coping with the HIV/AIDS epidemic has compelled communities to rely more heavily on proximate natural resources for livelihood survival, often in increasingly less sustainable ways (e.g. L. Hunter et al. 2007, Kaschula 2008). However, little of this scholarly work has examined these dynamics within conservation settings (L. Hunter et al. 2008). Successfully protected landscapes often house an abundance of useful resources that legally are off limits to communities adjacent to parks. Yet, it turns out that people are forced by the impacts of HIV/AIDS to rely more and more heavily on proximate natural resources and, clearly, the parks are where these resources are found in greatest abundance. Thus, one would expect, and research in fact indicates, that affected people are

willing to break the law in order to sustain their livelihoods: they harvest conservation's objects of protection as a way to do so. As one mid-level national park ranger indicated:

> Maybe someone's used to doing heavy duties, farming, or raising cattle, but now he cannot do those because he is affected by HIV and he is weak now, so all he can do is hunt small animals and to rely on plants and animals in the forest. People start doing these activities because they have become weak because of HIV. Once they have become affected by HIV/AIDS all they can do is to get what is nearby. Maybe someone used to be a businessman and travel or a pastoralist, who would have to walk long distances with cattle, and now they cannot do that, so they just stay there [in their community] and depend on the nature around them. They end up having to depend on their environment, even if that means the park.

Despite the criminal aspects of such acts, this ranger's verbal tone and body language indicated a degree of understanding and sympathy. In fact, several rangers with whom I spoke were clearly somewhat sympathetic regarding poaching motivated by illness and livelihood stressors, as opposed to trophy poaching or poaching rhino horn for sale, for instance. However, they all also indicated that they believed their hands were tied and that they would apprehend and punish poachers, regardless of the motivation for poaching.

Additionally, in situations where a breadwinner passes away from HIV/AIDS, those who remain and are healthy may turn to a park's abundant natural resources as a way to mitigate the livelihood deficit that results from the death of the breadwinner. In an ironic twist, one ranger described having to search for new poachers, who may be the offspring of a deceased park employee. "These young men who've been left behind will be poachers. Now you will be searching for your colleague's son or daughter who are coming into the park to collect some roots, firewood, honey, fish, and other animals for subsistence use. HIV has a direct impact on the level of poaching in the park." Whether we are talking about sick individuals who can no longer travel or perform arduous tasks or family members left behind after the death of a breadwinner, such livelihood strains compel people head to locations where resources are most

readily available. This increased reliance on proximate natural resources has been previously documented (L. Hunter et al. 2007, McGarry and Shackleton 2009). In the conservation-dense environment of northern Tanzania, protected spaces are among those most abundant with life sustaining resources. Their consumption by the ill and/or their family friends represent a new disease-driven manifestation of the long-standings fundamental conflicts conservation organizations face vis-à-vis local communities (e.g. Goldman 2006, Igoe 2004, 2006, Neumann 1998).

As people in communities near protected spaces pass away in increasingly larger numbers, a phenomenon many respondents tied to the HIV/AIDS epidemic, demand for wood, both for coffins and for the involved food preparation that accompanies funeral services in the area, has increased (Barany et al. 2005). This second material impact to objects of protection demonstrates how material conditions, implicated in larger politico-economic networks, result in significant impacts to conservation organizations' objects of protection. As one upper-level park scientist told me, "The number of poachers who are poaching timber has also increased because they need coffins. This is something I have seen. I have personally seen this. You notice that we don't have timber farms in this area so you have to ask where this timber is coming from. Often it is coming from the park." As HIV/AIDS impacts mortality rates in Tanzania, the demand for timber rises as well, often compelling people to enter into protected spaces to meet such demand.

At the same time that rapid wood consumption is occurring in the region, one national park implicated in this research, Lake Manyara, is actively expanding by incorporating additional forest land that lies adjacent to the northwest park boundary. The absorption of what was

communal forest land is being carried out in the name of expanding the protected landscape and animal habitats. In practice, however, it is expropriating communal resources and criminalizing previously acceptable community behaviors, such as collecting firewood, grazing cattle, and harvesting other natural resources to meet livelihood demands. Even in this instance, where people have traditionally been able to go to a particular forest tract that abuts the park and utilize that forest for timber collection, we see the impact of HIV/AIDS upon natural resources now considered protected by law within a conservation space. As a high-level park official explains:

> They [local communities] have their culture and the feeling that we are kicking them out. To adopt new systems is very difficult because it is denying them their rights to do what they are used to doing. There are some people who are moving around the park holding meetings with villagers surrounding the park and telling them about the changing park boundaries, so that they know that when we place the beacons [which delineate the park boundary], now the *sheria* [law] is going to be different. So that if you enter and we find you, we will fine you. You know the laws are not like they used to be when you could go and collect firewood and enter with your goats and cattle, now it has stopped. You guys have to arrange yourselves, but some of the villagers are like hey, whoa, where are we going to take our cattle now? How come now I cannot get firewood from our forest? It is okay, but how much can you collect? You've been collecting since your father and your grandfather and the forest used to be like 530 hectares and now it is only 220 because people needed to collect firewood, and needed to collect, and needed to collect until one day you realize that we no longer have a forest.

Thus, in the name of protecting landscapes rich in natural resources, the park is usurping the local community's ability to make use of such resources, further reducing the availability of such resources for communities. In environments where people remain reliant on proximate natural resources and that reliance is increased as a result of the HIV/AIDS epidemic, further restricting access to such resources is likely to fuel, rather than alleviate, tensions and conflicts between the park and adjacent communities. My interest is not to debate the validity of the park's usurpation of rights, but rather to suggest that the pressures on natural timber resources are compounded by park policy and to contend that the HIV/AIDS epidemic exacerbates the

problem of finding wood for funeral uses in the face of increased mortality rates tied to the HIV/AIDS epidemic. Having now examined a handful of the material impacts to conservation organizations, individuals, processes, and objects of protection, I move into a discussion of three ways in which discursively produced risk-based perceptions, rather than material events, impact the conservation establishment in equally profound, real ways.

Theories of Risk and Discursively Produced Risk-Based Impacts of HIV/AIDS

Moving beyond the corroboration of previous findings linking HIV/AIDS and wildlife conservation, I contribute to this small body of literature by using insights from several schools of risk theory to contextualize and examine a number of additional impacts about which previous work has remained silent. In part, these novel analyses tease out a crucial distinction between the material impacts of HIV/AIDS that stem from those events that have already taken place and those embodied consequences of the epidemic that have their impetus in understandings of risk. In each of the examples to come, however, I show not only how risk can be thought of as something negative believed to be on the verge of occurring, but also as a product of discourse that is mediated by normative value judgments. I examine discursively situated risk perceptions, which then foster particular responses, actions, and behaviors that have consequences for the conservation establishment. This section examines three primary strains of social theories of risk before using each of them to highlight the very materially real impacts to conservation based in the various contexts through which understandings of risk influence decision making processes.

Theoretical Formulations of Risk[91]

Within social scientific and epidemiological examinations of HIV/AIDS, notions of risk, risk perception, and risk behavior have become commonplace. As addressed in the Introduction, in relation to HIV/AIDS, many scholars have positioned risks as objective entities to be examined, understood, and mitigated. As Mythen and Walklate (2006:1) remind us, "risk has conventionally been approached as an objective entity, to be mastered by calculation, assessment and probability. However in line with rising public concerns about inbounded techno-scientific development and the apparent ineptitude of expert systems in managing hazards, interest in risk has gathered momentum within the social sciences." Thus, there has been great interest in what the risks associated with HIV/AIDS are, what behaviors predispose people to greater exposure to such risks, and how people perceive those risks. The idea being that if one can identify what the risks associated with the epidemic are, which behaviors are epidemiologically risky, and how people understand those risks, then one can design interventions based on these understandings with the goal of informing "more correct" perceptions of risk that will reduce risky behavior and therefore reduce the risks associated with HIV/AIDS and thusly reduce transmission. However, as the theorists below make clear, risks, like all social phenomena, are socially constructed, situated within sociocultural, historical, and politicoeconomic contexts. As Rhodes (1997:208) suggests, "theories of risk

[91] This discussion does not account for all conceptualizations of risk. Broadly speaking, there are two distinct categories of risk theory, one essentialist in nature, represented by techno-scientific and actuarial frameworks, and the other constructivist in nature, including the risk society framework, sociocultural theories of risk, and governmentality approaches. Because such techo-scientific understandings of risk have little bearing on this discussion, I do not examine them and instead move directly into a discussion of the three main constructivist approaches to risk.

behavior in the field of HIV … need to consider risk as a socially organized rather than individual phenomenon." Consequently, an informed approached to examining how risk and risk perceptions are produced begins by examining the various ways in which theorists have conceptualized and interrogated social formations of risk.

Social scientists have developed theories of risk, foregrounding the importance of history, context, political and moral economies, and discourse for the construction, interpretation, perception, and response to risk. In this section, I discuss three such approaches: the risk society formulation, championed most prominently by Beck (1992a,b, 1994, 1996a,b, 2009) and Giddens (1990, 1991, 1998, 1999a,b), the cultural/symbolic perspective, developed by Douglas (1985, 1992) and Douglas and Wildavsky (1982), and the governmentality school, which utilizes Foucauldian understandings of discourse and biopolitics (Castel 1991, Elbe 2005a,b, 2006, 2006, 2008, Fox 1998, Van Loon 2000, 2002). In each of the examples to come, I draw on aspects of all three theoretical frameworks to demonstrate that certain impacts to the conservation establishment are grounded in the complex and multi-faceted understanding of risk which lies at the intersection of the following theories.

The Risk-Society Thesis

In the 1990s, Ulrich Beck (1992a,b, 1994, 1996b) and Anthony Giddens (1990, 1991, 1994, 1998) set forth conceptualizations of what has come to collectively be called the risk society thesis. According to both scholars, contemporary Western societies exist in an epoch, late modernity, in which globalization, increasing industrialization, and urbanization have resulted in the explosion of the number of dangers and hazards that threaten humanity. Beck

and Giddens both view late modernity as defined by a shift from externally generated threats to manufactured threats, which are characterized by high levels of human agency, both in the production and response to such threats (Giddens 1999). Beck develops the concept of reflexive modernization, a critique of the very processes of modernization to address the governmental, industrial, and scientific sectors as the driving forces behind the use of ever-expanding technologies in such a way as to create ever-increasing manufactured risks. In such a reflexive modernity, those very forces that have propelled the advancement of Western technological societies now come to also manifest the most significant threats to survival. Consequently, this theory is both macrostructural in focus and based within realist paradigms, wherein these emergent risks are real, measureable phenomena. Though this risk perspective was clearly developed as a heuristic device to understand recent phenomena in industrialized societies, parts of these authors' formulations make it applicable to addressing HIV/AIDS in Tanzania.

Despite the problems that the grand theory of the risk society encounters in settings that do not conform to Western late modernity, risk society theorists make one fundamental contribution to the theoretical framework utilized in this chapter and that is the distinction between hazards as something 'real' and risks as what Ulrich Beck (1992a, 2000, 2008) and Van Loon (2000, 2002) term *becoming real*, what I conceive as a form of potentiality. As Beck (2009:9) explains, "The mode of existence of risks does not consist in being real but in becoming real … the … shared *expectation* of catastrophe." As Van Loon (2000) further elaborates, when risks become realized, that is the anticipated event actually occurs, it ceases to belong in the realm of risk and instead enters the realm of catastrophe or accident. Risk is

thus about potentiality, about the imminent possibility of actualization, not about that which has happened already: “risks exist in a permanent state of virtuality and are actualized only through anticipation” (Van Loon 2002:2). This distinction between the material and that which only exists, for a time, within the realm of discourse, between the real and that which is always potentially about to become-real, is central to my analysis in the rest of this chapter.

Additionally, both Beck and Giddens write of “diseases of civilization” (Beck 1992a:27) and diseases of modernity, which is a common way of positioning the HIV/AIDS epidemic. Importantly, both Beck (1992b) and Giddens (1991) suggest that advances in scientific realms have facilitated the ever more precise discovery and explanation of risks, but that scientific rationality has not developed a commensurate ability to mitigate or alleviate such risks, clearly the case with HIV/AIDS, particularly within Sub-Saharan African contexts. This theory is characterized by the increasing influence of expert knowledge as lay people come to engage risk within a rubric of personal responsibility and individualism through the advice of expert knowledge, a current very much reflected in dominant global responses to HIV and in HIV/AIDS prevention trainings and seminars. However, in relation to HIV, the risk society’s privileging of expert knowledges over lay knowledges is a problematic one insofar as it does not adequately account for the pushback of lay knowledge against expert knowledge, a topic addressed in Chapter Six (Grinyer 1995, Rugalema 2004).

Beck and Giddens’ risk society framework features prominently in Bujra’s (2000a) work examining gendered understandings of risk, trust, and HIV/AIDS in Lushoto, Tanzania. She asserts that the relevance of their work, “lies not so much in the model of risk society itself, but in the hypothesis about what globalizing risk does to social relations”(Bujra 2000a:77). Bujra

contends that gendered understandings of risk and trust are central to how people conceptualize HIV/AIDS risk in Lushoto. HIV/AIDS, as fundamentally a perceived risk, has moved previously closeted discussions out into the public domain. While Bujra argues that women have long lacked trust in their male counterparts, who have been motivated by economic conditions to migrate in search of employment and are prone to extra-marital sexual practices while away from Lushoto, she contends that as of late men have turned this gaze of distrust back on their wives, as HIV has fundamentally undermined the absolute power of men to control women's bodies:

> Whereas women have always had a healthy distrust of men and find in this new situation simply an augmentation of long held doubt, for men this is something new, a situation in which they can no longer take their power and capacity to control women for granted. What AIDS has done here, in Beck's formulation, is to equalize risk, and consequently to bring gender relations into question. (Bujra 2000a:70)

Bujra (2000a) then uses this assertion of the equalizing nature of risk to examine the contradictory messages associated with condom use. Condoms are intended to be instruments to reduce risk in environments that lack trust, as indeed several of my male conservation professionals indicated, but in intimate environments that *should* be repositories of trust, suggestions of condom use symbolize and augment distrust, shifting such environments from ones of trust to ones of risk. In these ways, Bujra adeptly mobilizes certain elements of the risk society thesis to provide penetrating insights into perceptions of and responses to risk in Lushoto, while dismissing the many aspects of the risk society formulation that are inapplicable in sociological examinations of non-Western settings.

Just as some aspects of the risk society thesis can be usefully applied to the examination of HIV/AIDS in non-Western settings, other dimensions of the thesis render it incompatible with

such a task. The risk society thesis is designed to address late modernity in industrialized Western contexts, termed the global risk society, calling into question its applicability in eastern African settings (Mythen and Walklate 2006). Giddens and Beck both argue that the proliferation of risks in late modernity is intimately tied to capitalist industrial growth and the power of science, though as Bujra (2000a) argues, HIV/AIDS is not directly a product of science in the way that Beck and Giddens articulate emergent risks. Additionally, the theory's macrostructural focus obscures the ways in which place-specific discourse produces understandings of risk, the manners in which people engage and understand such risks, and the pathways utilized to respond to said risks. That is, the theory does little to account for the micropolitics of HIV/AIDS risk or the relationships and social contexts that situate and constrain the epidemic (Bujra 2000a). Furthermore, Giddens (1991) suggests that the ubiquity of risk, which now effects entire populations, such as the emergence of HIV/AIDS, which at least theoretically threatens everyone, has had significant implications for sexuality, intimacy, and trust. While there is no doubt that HIV/AIDS has had significant impacts for the intersections of sexuality and trust, in sub-Saharan contexts, not everyone is actually subject to the same degree of risk in the way that Beck and Giddens contend. Throughout the region, the feminization of HIV/AIDS has resulted in an epidemic that is statistically more profoundly impacting women and the correlation between wealth and seroprevalence explored in the Introduction and Chapter 4 means that there is a powerful class dynamic to viral vulnerability. Thus, several characteristics of the risk society theory limit its explanatory value in non-Western explorations of the micropolitics of risk perception and the manners in which these perceived risks can result in embodied consequences. While the risk society's foregrounding of

potentiality is a cornerstone for my analysis, the problematic aspects of the risk society thesis compel us to look at the theoretical contributions of other theories of risk, to which I turn now.

Cultural/Symbolic Theory of Risk

Though not without its own issues, an alternative to the risk society thesis is the cultural/symbolic risk theory put forth by Mary Douglas (1985, 1990, 1992) and in work with her colleague (Douglas and Wildavsky 1982). Douglas mobilizes a structural functionalist position to contend that risk operates as a sociocultural and political frame used to maintain social boundaries and promote group cohesion through calculated practices. She contends that there are several typologies of risk-taking or risk-averse selves, largely determined by the strength of the bonds between that individual and the social community's moral project in a move reminiscent of Durkheim's work on suicide ([1897] 1979). Although she shares a structural focus and the positioning of risk as inherently political with Beck and Giddens, she chooses to locate risk firmly within shared group cultural understandings. Contra both Beck and Giddens, Douglas (1992) argues that risk is culturally constructed and framed and that sociopolitical, economic, and cultural processes often trump expert or scientific knowledge regarding how risk is perceived in a given community. She asserts that "pre-established cultural beliefs help people to make sense of risk" (Lupton 2006:13). Thus, risk functions as a series of calculated practices mobilizing value judgments which serve to enforce boundary maintenance projects, reflecting social expectations and responsibilities of morality (Douglas 1992).

Utilizing this cultural/symbolic conceptualization of risk to inform an examination of lay understandings of HIV/AIDS in Tanzania, Rugalema (2004:192) reminds us that positioning risk

as a social product means "there is nothing … self-evident about the moral 'scoring' we apply to risk behaviors … [but] clarifying risky behaviors 'good' and 'bad' has an important practical side," vis-à-vis the maintenance of moral group boundaries. Thus, in opposition to the realist perspective adopted by Beck and Giddens, wherein risks exist as a result of the proliferation of manufactured threats, for Douglas contextually specific notions of risk are inherently negotiated by social groups and mobilized to police boundaries between the self (and the group) and the Other (Lupton 1999a). This conceptualization of boundary maintenance through the mobilization of understandings of risk provides increased explanatory power for understanding how something that exists only as a discursive production can have profound material consequences for conservation organizations and this notion of risk as possessing a normative component is the main contribution which Douglas' theory adds to this analysis.

While Douglas acknowledges that the understandings of risk that shape moral social boundaries and their enforcement do mutate, she is silent on where exactly these culturally situated understandings of risk originate or how it is that they can change. So I contend this way of understanding risk needs to be coupled with an understanding of how discourse and not simply pre-existent cultural norms produce understandings of and reactions to risk vis-à-vis the HIV/AIDS epidemic. The idea that understandings of risk emanate from some pre-established unnamed social location is problematic because, as can clearly be seen regarding HIV/AIDS, the shared cultural understandings people have about HIV/AIDS, or any other risk for that matter, shift, mutate, are contested, and are negotiated. How these notions shift, I contend, is largely an effect of discourse. Although Douglas and Wildavsky (Douglas 1985, 1990, 1992, Douglas and Wildavsky 1982) contribute fundamental insights into the culturally situated nature of risk, risk

perception, and responses to risk, their silence on the productivity of discourse as a source of power regarding all three facets of risk forces an examination of governmentality approaches.

Governmentality Theories of Risk

The last theoretical approach to risk that informs this analysis is one grounded in Foucauldian notions of governmentality and is consequently labeled the governmentality perspective. This frame foregrounds (a) the discursive production of risk (b) how knowledge/power discursively circulates to construct certain groups, such as homosexuals and injecting drug users, or in this case conservation professionals, as high-risk groups, and (c) the pathways through which sexuality and bodies are positioned, regulated, and controlled through discourse (Sanders 2006). “Risk is understood as one of the heterogeneous governmental strategies of disciplinary power by which populations and individuals are monitored and managed” (Lupton 1999b:4). While both the cultural/symbolic perspective and the governmentality perspective share the idea that risk is constructed in order to police certain social boundaries, Douglas posits that this process relies heavily on pre-existing shared cultural understandings of morality. In contrast, the governmentality school actively foregrounds the importance of discourse in shaping understandings and related behavior and argues that this process occurs through the discursive mobilization of expert knowledges and biopolitical and scientific technologies of surveillance. So while Douglas is correct that risk functions as a way to enforce moral group boundaries, I believe she is only partially correct that the framework for such governmentality comes from pre-existent cultural formations. It is equally a product of shifting discourses of the present.

Of the theories of risk presented here, this governmentality approach is the one that has, thus far, been most productively utilized to examine HIV/AIDS. Tulloch and Lupton (1997) utilize the framework to address how televisual media has been used, through processes of normalization, to construct and reinforce moral codes surrounding HIV/AIDS, positioning some bodies and populations as inherently morally lacking and therefore high risk. Sanders (2006) engaged in a similar project of examining how homosexual and commercial sex worker bodies and populations have been discursively positioned as abnormal and high risk with regards to HIV/AIDS. The discursive positioning of the epidemic as a gay plague at its inception is used as an example. Although gay communities in the United States were indeed the most materially impacted at the outset of the epidemic, the discursive positioning of such individuals as aberrant, deviant, and deserving of heightened scrutiny and control compounded these material impacts. Elbe (2002, 2005a,b, 2006, 2008, 2009, 2010) has productively used risk as a theoretical vehicle to demonstrate how Foucauldian notions of biopolitical technology contribute to a discursive construction of the HIV/AIDS pandemic as a threat to national and international security and, thus, how populations become positioned for government surveillance, regulation, and interference. Following Foucault, Elbe contends that expert knowledge becomes generative in shaping how discourse positions bodies and populations (Elbe 2009). Certain identities, behaviors, and populations are, consequently, discursively labeled as normal, locating others within a moral discourse as ripe for intervention, monitoring, and managing due to their discursively produced aberrant identities and behaviors. Within this discursive framework, risk, and as an extension HIV/AIDS, thus comes to be viewed as manageable and controllable through expert knowledge and intervention (Elbe 2006). This

framework will become increasingly important in the following chapter due to the ways in which risk also comes to function as a moral apparatus through which individuals and populations are increasingly encouraged to engage in self-regulation, a key shift in governmental strategies. Therefore risk behavior comes to be positioned as a moral enterprise (Foucault 1991), a commonality shared with Douglas, albeit for difference reasons (Lupton 2006).

Unlike the realist position put forth by Beck and Giddens in their risk society thesis, the weak constructivist stance of Douglas and the cultural/symbolic frame, the governmentality approach views risk as an effect of discourse, through a highly relativist and constructivist frame (Lupton 1999a). Thus, as Ewald (1991:199) asserts, "Nothing is a risk in itself; there is no risk in reality. But on the other hand, anything can be a risk; it all depends on how one analyses the danger, considers the event." The governmentality school contributes the idea that risks are not simply objectively out there in the world, as Beck and Giddens contend, nor are they to be understood simply through the lens of vestigial cultural consensuses, as Douglas argues, but rather that they are actively produced through discursive formations, which serve to make bodies and populations legible, manageable, and controllable. This idea of the productive quality of discourses surrounding risk helps to make the theoretical framework used in this chapter more robust when combined with the distinction between the materiality and discursivity and Douglas' insight that perceptions of risk correspond to cultural moral boundaries.

In this chapter, I both draw on the governmentality approach to risk, which foregrounds the productive power of discourse as it relates to risk, and illuminate another intersection of

notions of governmentality, risk, conservation, and HIV/AIDS. In Tanzania, projections of nation-state and NGO conservation environmentality/ecogovernmentality attempt to instantiate subjectivities which internalize and reproduce particular kinds of power-laden relationships with their proximate landscapes, the people tasked with maintaining them, and the objects of that maintenance (Agrawal 2005, Luke 1999, Malette 2009). That is, the state and other actors attempt to mold social relationships and interactions with protected areas and the animals found within them in ways which are in line with the larger project of conservation (Garland 2006). Yet, when it comes to livelihood risks perceived to be related to the HIV/AIDS epidemic, some individuals reject such attempts to regulate their behavior and do so in ways designed to mitigate health risks that are detrimental for the conservation enterprise. In a later section, I explore these dynamics through the practice of Giraffe poaching as a response to illness.

In sum, aspects of each of the three perspectives presented here is crucial to an informed and nuanced analysis of how the HIV/AIDS epidemic impacts the wildlife conservation establishment because the intersection of these three theories help us to understand the contextual loci of risk perceptions and the dynamics of responses to such perceived risks. The risk society thesis provides an important analytical insight by virtue of its distinction between real and becoming-real and its formulation of risk as that which is always on the cusp or realization, yet exists in this liminal space of potentiality. The cultural/symbolic perspective is necessary for its pushback against the positivist stance of the risk society and its insistence upon the socioculturally produced nature of risk and understandings of and responses to such produced risk. This frame also provides a useful focus on the ways in which actions and behaviors in the face of perceived risk function to maintain and reinforce culturally constructed

social norms regarding belonging and morality. However, I couple this insight with the discursive focus of the governmentality framework to recognize that the constructions of risk do not simply emerge from group moral consensus aimed at the maintenance of group boundaries, but are rather produced through discourse and as such remain open to a kind of negotiation and contestation that the cultural/symbolic perspective does not leave room for. This foregrounding of the discursive mobilization of biopolitical technologies of knowledge/power is rooted in the governmentality approach to risk and helps us to be able to further explore the intricacies of how perceptions of risk are formed and how to interpret peoples' responses. Having now elucidated the three main strains of risk theory, within which this chapter's analysis is situated, I turn to the voices of conservation professionals working in northern Tanzania conservation settings to detail exactly what the discursively based impacts of HIV/AIDS in such settings are and how social theories of risk can help us to have a more complete understanding of these dynamics than previous scholarship has offered thus far.

Discursive Impacts of HIV/AIDS upon Conservation Processes

Earlier in this chapter, I argued that material manifestations of HIV/AIDS are impacting the manner in which anti-poaching patrolling, a process fundamental to the conservation enterprise, unfolds. As conservation practitioners become ill, their physical ability to fulfill this crucial conservation process is compromised, which results in a material, embodied consequence for conservation. However, there is another more subtle way in which discursively constructed potentialities, understood here as perceived risk, are also resulting in embodied consequences for conservation. For each patrol or duty that is carried out in a conservation

setting, there is a workforce manager who has delegated that responsibility to an employee. Perceptions of risk concerning HIV/AIDS now influence how conservation protection managers approach the task of delegation and how they assign tasks. This is the first of the three examples I use to illuminate how the material impacts of discursively produced notions of risk affect the conservation establishment. In this example, risk is about potentiality, as elaborated by risk-society theorists, and can be understood as the perceived possibility that following a certain course of action may result in undesirable negative consequences. Furthermore, as we will see, responses to perceived risk function as a kind of moral enterprise, which has its roots in discourse.

For instance, managers reported experiencing patrolling differently as a result of worker illness and death, clearly not all attributable to HIV/AIDS. However, it does not particularly matter whether the employee's health is compromised by HIV/AIDS. The mere suspicion that it is, in fact, an HIV/AIDS-related illness, existing in a space of potentiality as expressed by Beck (1992a), shifts the ways in which a manager approaches assigning job responsibilities and thus impacts a fundamental conservation process. One head ranger summed up the delicate situation surrounding sick workers and patrol duties by saying, "Sometimes patrols can include heavy duties and in the first kilometer someone will fall to the ground. How am I supposed to arrange patrols when I think this might happen?" This ranger recognizes that if this risk is actualized, i.e. his staff member actually falls to the ground and is unable to continue, there will be a material impact. Yet, in his attempt to evade such an outcome, he acts in a way that actively shapes the anti-poaching patrol process.

Additionally, managers simultaneously recognize that being open about the believed seropositivity of an employee can result in another kind of undesirable embodied consequence, related to breaches of national confidentiality laws and attendant stigma-based marginalization, isolation, and moral judgment. Managers lamented that it was both illegal and culturally inappropriate to approach a subordinate and ask about serostatus. In important ways, legal structures shape discourse and consequently, this risk potentiality is a product of discourse, as the governmentality school asserts. Were managers to broach such a delicate subject, although it might help them to more effectively assign work duties, doing so would open a space for an additional negative potential outcome vis-à-vis the violation of national confidentiality laws.

Thus, not being able to do ask such questions of staff members mobilizes two distinct types of perceived risk. First, the manager risks sending rangers into the field for an assignment for which they are physically unfit, thereby potentially compromising the success of the patrol. Thus, involved in this perception of potential seropositivity is the risk of a very material, embodied negative consequence. Second, to impute seropositivity to an individual openly is to risk exposing them to isolation and/or damaging collective moral judgment in environments such as the northern safari circuit where HIV/AIDS-related stigma remains powerful. Park managers are then left in a delicate position where they have to use their judgment to infer how to best assign duties precisely because of the possibility of actualizing these potentialities. Several managers bemoaned that they felt as though the perceived risks associated with confidentiality and stigma regarding HIV/AIDS made the ways in which they approached the process of deciding how to best allocate their limited resources much more difficult:

> I can look at somebody and see that they look sick but that is as far as I know and that makes my job more difficult. I can only guess if it is HIV/AIDS or not. I cannot ask my ranger if he is sick with it [HIV/AIDS]. To say that he has it [HIV/AIDS] when he does not would create serious problems. So when I'm arranging for patrol I have to decide, okay, we are headed out on a difficult patrol but not everybody can go. Somebody has to be left here at the station. So in arranging for my patrol I have to use my judgment to know which guy to leave in the office and who should go on patrol. But, no one tells us, so we have to try and figure this out on our own.

Due to stigma and laws regarding confidentiality, managers cannot inquire about seropositivity. To incorrectly assume that some employees are HIV+ would be to turn the discursively constructed possibility of stigmatization into an embodied reality. Often, suspected workers are morally judged and blamed for their own invisibly compromised health. Thus, the worker who appears to be ill, whether or not the illness is HIV/AIDS is assumed seropositive and unable to patrol effectively because of the manager's inability to ask. The employee may be relegated to operating the base radio so that the risk of stigmatization is not actualized or the patrol jeopardized. It important to recognize that this decision, based purely on risk assessment regarding HIV/AIDS since the ill employee could be suffering from any number of physically debilitating conditions, further reduces workforce productivity. Thus, while Beck and Giddens collective notions of risk as a phenomenon revolving around understandings of potentiality help us to understand the calculus around which conservation managers make decisions, so too do Douglas and Wildavsky's theorization of the relationship between risk and moral judgment.

Mobilizing the risk of stigmatization is a way in which moral boundaries in this setting are maintained. As Douglas and Wildavsky (1982) argue, risk is a framework for understanding the assigning of blame vis-à-vis morality. Interview respondents were often very frank, stating that in northern Tanzania an HIV+ person is viewed as immoral, dirty, an object of scorn and disdain. Lupton (1999b:55) contends, as part of her framing of the cultural/symbolic theory of

risk, "the way in which dominant social groups have reacted against those they have positioned as 'deviant' and 'risky' by attempting to marginalize and exclude them, drawing up a *cordon sanitaire* of hygienic strategies to demarcate boundaries, is a clear trend in the history of the HIV/AIDS epidemic." To position someone as seropositive, and thus open them to the full wrath of stigmatization, is a serious potential liability. Thus, managers are left in what they uniformly describe as the uncomfortable position of having to infer relative health and job capabilities when assigning work tasks. Consequently, it was common to hear from park managers that their hands were tied: they could not, given issues of legal confidentiality and moral imperatives, directly ask any employee if they were seropositive. Hence, job assignments were made on the basis of observation in an attempt to skirt the possibility of actualizing the potential negative consequences, or risks, associated with openly identifying another as seropositive.

Furthermore, because of the high level of social stigma surrounding HIV/AIDS in northern Tanzania, employees rarely, if ever, disclose serostatus to workplace superiors.[92] To do so would be to actualize the potentiality of stigmatization against one's own personhood. So employee reluctance to disclose their illness further hampers the ability of managers to work effectively. The secrecy surrounding HIV/AIDS results in managers having to make educated guesses, based on observation, about who is healthy, who is sick, and who can perform what

[92] It is once again worth noting that the notion of confidentiality is lost in translation and becomes secret in Swahili. So, the idea that there could be productive ways to share one's health status, that might actually alleviate rather than result in burdens, disappears. Over the course of this research, I was struck by the consistency with which health practitioners and HIV/AIDS NGO workers alike indicated that they believe confidentiality laws and norms are actually one of the biggest hurdles to more effectively addressing the epidemic in northern Tanzania. Angotti (2010, 2012) and Angotti et al. (2009) cogently examine this striking phenomenon in rural Malawian settings.

job duties. The following interview exchange, with a protected area section ranger, details these dynamics:

> I used to have eight rangers, but due to sickness, I now only have five. And I think that one of them has HIV. [Why do you think this person has HIV?] Because he is always sick and is not as effective as he used to be. [Does that change how you do your job?] Of course. You see, someone with HIV is not as effective as somebody that is healthy. They can use contraceptives, ARVs, and other medicines, but the disease still affects them a bit. I have even had a ranger here who died. When I am setting up assignments, I have to look at the types of activities we are going to do and the place that we are going. Sometimes we go out to catch a poacher and we have secret informers who tell us where to go. Once we have that information, we go as a group because we know … that there are poachers in the forest with machetes or maybe guns, so I have to set patrols accordingly. [So, if I was trying to gauge how much this impacts the process of managing people and setting up patrols, what would you say?] This is a big problem because you can't segregate people. You cannot say, okay you are sick so you are not going on this patrol, we cannot do that, even if we think that somebody is sick. To say that can create a very big problem for them. So, when we set up patrols, we have to assume that everybody is okay, even when we can see they are not. Nobody is going to say that they are sick and suffering from HIV, so don't include me on this patrol. Nobody will say that, nobody has ever told me that they were HIV-positive, even when I knew they were. This makes deciding who to send out much more difficult.

Due to the high level of social stigma surrounding HIV/AIDS in northern Tanzania, employees rarely, if ever, disclose serostatus to workplace superiors because to do so would be mobilize risk as a locus for blame and isolation, thus leaving it to the manager to infer relative health status in the face of these potentialities of risk (Lupton 1999a). This further hampers the ability of managers to effectively engage in the process of management. The possibility of seropositivity in visibly ill employees becomes an elephant in the room that, because of perceived risks, no one will acknowledge. Managers will not openly express their belief that an employee is HIV+ because they risk identifying someone incorrectly as HIV+ and thus unduly stigmatizing the employee—the other side of the coin. As a result of the ever-present possibility of realizing the risk of isolation and stigmatization, people are not sharing vitally important health information, and this is fundamentally about perceived risk. Managers are left to quietly

dance around the subject, shifting duties and curtailing patrols in a way that has demonstrably embodied consequences for the processes of conservation. Thus, in this example risk functions (a) as a way to understand the potential of actualizing undesirable negative consequences, surrounding both the efficacy of anti-poaching patrols and the moral stigmatization of seropositive employees and (b) as an effect of discourse. Both Beck and Giddens collective focus on potentiality and Douglas and Wildavsky's attention to moral judgment help us to explain the complex dynamics at work in conservation processes and the ways in which such understandings and responses materially impact conservation processes, organizations, and individuals. Additionally, the governmentality school's emphasis on the discursive production of risk helps contextualize the ways in which managers negotiate potential seropositivity among employees. Consequently, this example points to the complicated and multi-faceted ways in which dynamics we associate with risk play out of the ground.

Discursive Impacts of HIV/AIDS upon Conservation Relations

Perceived risks associated with HIV/AIDS-related stigmatization also have a profound impact for parks' relationships with adjacent communities. All of the conservation spaces in which this research was conducted are adjacent to communities. In the case of Ngorongoro Conservation Area, there is also a significant pastoralist population, numbering nearly 60,000, living within the protected area. Despite this important difference, dynamics of policing behavior regarding poaching and unsanctioned land use remained similar. As a result, in all three locations, conservation workers work to maintain positive working relationships with nearby communities, foster community behavior in line with the logic of conservation, and rely

on those communities for information regarding potential illegal activity. As one upper-level manager indicated, “We have secret informers [local residents] who tell us where to find” people using protected resources illegally.

Several high-level park employees detailed the extent to which they believe communities adjacent to conservation spaces remain dubious of the good intentions of the parks and detailed high levels of suspicion and animosity toward park employees. One senior section ranger told me, “I don’t think they [communities] trust us very much or think we are here to help them.” Because of the restrictions on the use of proximate natural resources by communities in these resource poor environments, animosity and suspicion are understandable and have been documented by numerous scholars working around the northern safari circuit in Tanzania (e.g. Brockington 2002, Goldman 2006, Igoe 2004, Neumann 1998). When it is possible to cultivate positive, quality relationships based on trust, conservation practitioners work to do so because then they can more effectively impose a logic of conservation upon both space and persons.

Often it will be a single conservation worker who shapes the discursive environments which facilitate positive community relations based on trust. Speaking of a ranger who passed away from what were rumored to be AIDS-related illnesses and prior to becoming ill was widely respected as a liaison between the park and such communities, one senior conservation actor noted an unexpected, yet important impact of HIV/AIDS:

> The other thing is that he [the ranger] was good to the communities adjacent to the park – he was the one who was dealing with the conflict resolution, whenever conflict erupted between the rangers and the local communities or between men and wildlife. He was the one that had the wisdom of being able to speak to the elders of the community. Now we don't have such a man and you take a young man who is not experienced to do this and this is like putting cattle into the fire, so we have so many troubles. So in the end, that it is really affecting us.

When those who serve as the go-betweens parks and communities are perceived to be seropositive, the relationships they have cultivated also suffer. Since HIV/AIDS is so heavily stigmatized within local and extra-local discourses, the revelation or suspicion that a community liaison is seropositive can have a significant, crippling impact on their ability to interact with the people in the adjacent communities.

Thus, in a place where people are often isolated or shunned as a result of infection, there are potentially significant ramifications for how local communities interact with conservation actors they may perceive to be seropositive. As one upper-level manager lamented:

> Sometimes rangers want to talk to people in the local communities or have to interact with them because you find that conservation issues also impact them. Local communities believe that many people inside the park have been infected with HIV, so then it becomes even more difficult for the rangers to talk to people in order to get information about illegal activities occurring within the conservation area. This interaction becomes more difficult because people do not want to be around people with HIV. They think that if they [community members and the believed-to-be seropositive park employee] are sitting together, maybe something will happen [that would result in the transference of the virus]. The local communities will not listen because they think the ranger has been affected by HIV.

As previous research has illuminated, discursively constructed HIV/AIDS-related stigma remains a powerful social force in Tanzania (e.g. Hartwig et al. 2006, Holzemer et al. 2007, Roura et al. 2009, Zou et al. 2009). Furthermore, conservation professionals are widely believed to be particularly at risk group for HIV infection. Community members make such assumptions on the basis of conservation workers' higher than average salaries, high levels of mobility and isolation from family networks, and their perceived levels of promiscuity. One mid-level conservation scientist indicated, "Even if you go to Karatu, you will find many people who say that the many people working in the park have been affected by HIV. This means that they are less willing to

interact with or listen to park employees." Thus, the perceived levels of risk of seropositivity for conservation professionals can serve to undermine the network of relations upon which successful conservation is predicated, even though this risk only exists within the realm of potentiality as articulated by Beck (2009:9): "risks are always future events that may occur, that threaten us." Thus, risk again functions as a heuristic device to understand the possibility of negative consequences which can result from particular contextually-based understandings and perceptions and is seen to clearly be a product of discourse.

But in this framing, it is not so much the corporeal threat of infection that leads communities to distance themselves from conservation practitioners, but rather the threats to the cohesiveness of group moral boundaries. Douglas (1992:117) develops this theme in her cultural/symbolic assessment of risk vis-à-vis HIV/AIDS: "the … idea that a new infection has external origins is transmuted in the course of the cultural project into a complex weapon of control." As community liaisons become ill, the channel of communication between parks and communities break down and the trust and rapport built over time are lost.

Thus, merely the perception of infection on the part of local communities shifts interactions with conservation professionals in ways that have embodied consequences for day to day conservation relationships. Perhaps partly because many conservation workers are not native to the area or perhaps because they literally live in areas cordoned off from the general adjacent populations, conservation professionals believe they are typically viewed as outsiders, as separate, as other, and this othering is mobilized, in part, through suspicions of high levels of seropositivity. As one upper-level protection manager summarized:

> People do not like to talk about it [HIV/AIDS], especially in the nearby villages. I think it is because for many Africans it is a shameful disease. When somebody says that a person died of

> HIV, even that house will be viewed differently - that these people are prostitutes, that these people are like this or that, so people have this mentality. For that reason people don't want to talk openly. This is why we don't even mention that they [park employees] are suffering from HIV. This remains something very secret because of how the community will view it. This disease is shameful disease and once you get it people will start thinking maybe it's because you have bad behavior and spend time with prostitutes or something like this. Here there is a very strong connection between morality and HIV.

Vis-à-vis conservation relations, HIV/AIDS functions as a way of marshalling the assignment of blame: "if townsfolk [communities] … really believe it is a problem caused by transients [conservation actors]: good, then it does not concern them, so long as they can cordon off the town" (Douglas 1992:111). I want to return to the quotation two pages previous, in which the interview respondent contends that community members become less receptive to conservation practitioners with whom they interact by virtue of the belief that sitting next to them can result in "something happening." In light of the cultural/symbolic perspective of risk, the "something" that might happen is not necessarily the fear that physical proximity or contact might result in the transference of the virus. Rather, actively listening to, respecting, and cooperating with someone believed to potentially be HIV+ results in a breakdown of the maintenance of collective moral boundaries and, thus, is to be avoided. As Lupton (2006:13) reminds us, "risk beliefs and practices are ways … of maintaining social cohesion, stability and order … risk ideas function to protect symbolic boundaries and manage threats to social order …. Those individuals or groups who are identified as posing this threat are deemed to be responsible and therefore subject to opprobrium." The enforcement of these collective community moral boundaries then comes to function as a localized form of governmentality. This strategy of community control negatively impacts conservation community relations in material, embodied ways, despite the fact that, statistically speaking, the likelihood of the

conservation practitioner being seropositive is very low. Just the presumption of seropositivity brings with it the loss of respect for these conservation community liaisons: their moral authority is eroded by conjectures that it was immoral sexual behavior that resulted in viral infection. Thus, risk remains about the possibility of actualizing potential negative consequences, in this case, those related to the potential deterioration of the moral order and group boundaries. Although the response to risk is different than in the previous example, it is crucial to note that, like the decisions conservation managers make in the face of perceived risks, understandings of risk and potentiality in both cases prompt a particular kind of response aimed at mitigating such possibilities. So, once again, Beck's notion of potentiality is fundamental to understanding this HIV/AIDS related risk, Douglas helps us to understand how such perceived risk mediates and reinforces group boundaries, and the governmentality school illuminates how this entire process occurs within the realm of discourse.

Discursive Impacts of HIV/AIDS upon Conservation's Objects of Protection

The last example I use to demonstrate how risk perceptions, regarding the actualization of potential negative embodied impacts and outcomes, are resulting in embodied material consequences for the conservation sector, operate as a moral enterprise, and function as a product of discourse involves the extraction and harvesting of flora and fauna for their perceived medicinal value in treating HIV/AIDS. Such a response to risk perceptions and experiences of disease requires situating within two important longstanding culturally situated historical patterns, which the governmentality risk theory school reminds us are largely an effect of discourse. Firstly, in relation to protected areas and the flora and fauna found therein,

the Tanzanian governmental and conservation apparatuses have a long history of instituting significant restrictions on access to and use of natural resources, which has occurred through both the exercise of disciplinary power and manifestations of ecogovernmentality, as discussed in Chapter 3 (Luke 1999, Malette 2009). Indeed, at the same time the government is enforcing punishment for the transgression of laws related to conservation spaces, they are also engaged in a process of attempting to create subjects which relate to nature in particular ways, which are in-line with the larger logic of conservation (Agrawal 2005, Garland 2006). This dynamic was illustrated earlier in this chapter, as conservation professionals in the area spoke of attempting to educate local residents about changes in park boundaries in the hopes that such residents will internalize and self-regulate their timber extraction and grazing behaviors in newly gazetted areas. While there are material drivers for the increasing policing and regulation of behaviors as they impact conservation spaces, as Bonner (1993) relates there has been a discursively produced sense of urgency and crisis surrounding the conservation establishment and such discourses have been mobilized to justify the exercise of both disciplinary power and ecogovernmentality. Yet, as we will see shortly, such environmentality attempts are undermined in the face of health related risks, or the perception that a particular kind of action can mitigate the actualization of potentialities regarding declining health believed to be the result of HIV/AIDS.

Secondly, in Tanzania, particularly in rural communities, the use of traditional healers has a long history, one preceding that of Western-based, biomedical approaches (D. Ferguson 1980, Plummer et al. 2006). Thus, seeking the services of these healers is considered culturally appropriate, acceptable, and effective. Such healers are accessible and affordable, whereas

Western biomedical care has been neither of those for the majority of its trajectory in Tanzania (Mshana et al. 2006), as demonstrated in Chapter 3. Previous researchers assert that current cultural norms in rural northern Tanzania still promote the viability of using traditional healers to attempt to treat a number of illnesses, including HIV/AIDS itself (Mshana et al 2006, Plummer et al. 2006). Additionally, such healers are demonstrably successful in using organic compounds to treat some HIV/AIDS-related conditions, such as Candidiasis or oral thrush (e.g. Liddell et al. 2005, Winkler et al. 2010).

Thus, the belief that there is a health risk associated with HIV/AIDS that can be addressed and alleviated though the utilization of plants and animals as medicine is rooted in cultural constructs that precede the emergence of the epidemic, yet this response to risk, or potential embodied negative consequences, here understood as deteriorating health and/or death, creates a direct, material impact for the conservation establishment of northern Tanzania. Despite environmentality attempts to promote particular social relations with conservation spaces and objects of protection, such strategies break down in the face of perceived health risks, which result in actions that undermine the logic of conservation. As one elite conservation professional explained,

> Wildlife is affected one hundred percent [by HIV/AIDS]. That means losing biodiversity in the park. People are in the park killing animals because they *believe* that parts of those animals can be used as medicine. Also, people are poaching for herbal medicines from plants. Plants will be heavily poached as it is found or believed they can actually contribute to solving the problem. I discovered that poachers were collecting a lot of bark from trees and leaves and roots to treat diseases that are associated with HIV like tuberculosis and oral thrush.

As this senior conservation manager states, it is not all that important that organic materials actually contribute to treating illness as long as they are perceived to do so, though they may indeed do so effectively. Thus, it is culturally situated understandings of health risks and the

perceived culturally appropriate responses to them that are at the heart of this very materially real impact to the conservation establishment. People are, in fact, not necessarily treating a particular illness, since HIV/AIDS does not have a single epidemiological presentation. HIV/AIDS has a symptomatic presentation, but one which does not always facilitate an automatic diagnosis of seropositivity. Therefore, in some instances people are left to impute that as a result of the specific observable symptoms, the root cause is the presence of the HIV virus. Thus, they are treating an idea: the idea that they are ill with what they *believe*, but do not always necessarily *know*, to be HIV/AIDS.

As Douglas (1992) argues, understandings of and responses to perceived risks are culturally constructed, mobilize pre-existent cultural and moral group understandings, and must be considered in relation to material resources and cultural context. “Pre-established cultural beliefs help people to make sense of risk, and notions of risk are therefore not individualistic but rather shared within a community” (Lupton 2006:13). Using traditional healers in northern Tanzania, therefore, is a culturally acceptable and valid way to mitigate perceived risks, including the possibility of worsening health and the risk of death. Therefore, some responses to the perceived risk of illness or death from an emergent health threat, in this case HIV/AIDS, draw on pre-established ways of knowing and the culturally situated practices through which they long have been approaching illness. This response to risk functions in relation to governmental strategies surrounding another kind of risk, the partially discursively produced conservation-in-crisis narrative which seeks to shape interactions with proximate natural environments in particular ways. However, in environments where people have been relying on traditional medicines derived from plants and animals to address illness for long

periods of time, the idea that they would shift such practices in the face of a new, grave health risk simply doesn't culturally make sense. People make sense of emergent threats, such as the HIV/AIDS epidemic, through the integration of these new phenomena into existing understandings and ontologies, in this case situated understandings about how to restore health through the reliance on natural compounds. That such naturally occurring compounds can be used to treat particular medical conditions is not new, but tying such conditions to HIV/AIDS means that people may perceive there to be a new causal factor at work.

My intent in this discussion is not to draw any conclusions as to the efficacy of such traditionally grounded, but emergent health treatments. Rather, the point here is three-fold: (a) to demonstrate that natural resources are, in fact, being harvested for their perceived ability to mitigate potential health risks, (b) that the harvesting of these natural resources is impacting conservation's objects of protection, and (c) that the motivation for such utilization lies in discursively situated perceptions of risk—the perceived risk of worsening health and/or death from what is believed to be an HIV/AIDS-related illness. I support this line of reasoning by exploring the recent phenomenon of giraffe poaching.

The *Arusha Times* reported on January 16, 2010, "Mass poaching of giraffes … in the period between 2006 and 2008 was accounted to beliefs by locals that bone marrow from giraffe could cure HIV-AIDS." While there is no biomedical empirical evidence to suggest such resources actually assist in treatment, this is beside the point because in the past several years, there has been an perception driven increase in the poaching of Giraffes in parts of the northern safari circuit.

> Giraffe poaching in recent years, maybe the past two or three years, has become more common and many people are doing this. This poaching is being done because many people have the

> feeling that you can use the bone marrow of giraffes to treat HIV. They say that people put the bone marrow inside a kind of container and shake it like a soup and then when they drink it they are cured of HIV. So people are poaching giraffes to get this bone marrow.

As this ranger asserts, conservation areas in northern Tanzania have witnessed a rise in the number of Giraffe poaching incidents and, without exception, every time this subject was raised with respondents, they tied this response to perceptions about the health risks associated with the HIV/AIDS epidemic.

Such an account was corroborated by another senior ranger, who asserted, "a lot of poaching is fueled by traditional healers and 'witch doctors'. For instance these doctors will tell people that they need to go and find *mishipa ya mifupa ya twiga* [the bone marrow of Giraffes] and that if they bring these back, people believe they can be used to stop sick people from getting worse and to cure illnesses, including HIV." Giraffes are the national animal of Tanzania, so killing one, regardless of whether the killing is done inside a protected area, is a highly punishable criminal offense. Yet, despite the disciplinary state apparatus and ecogovernmentality attempts to shape peoples' interactions with such animals, people are killing them, in large part because of how they perceive imminent health risks. Respondents consistently communicated that when the health of someone is in decline, particularly if the perceived root of such decline is HIV-related (whether it is, in fact, HIV/AIDs-related or not), many believe that the potential further decline in health, or risk, can be mitigated through the ingestion of Giraffe bone marrow. Since there is no biomedical evidence to suggest that bone marrow is effective in arresting the progression of HIV/AIDS, and in corroboration with what several participants indicated, we are left to conclude that the notion that bone marrow can, in fact, be productively used in this way is a product of lay discourse. In this way, discursively

produced understandings of risk come to be of primary importance for generating particular embodied consequences for conservation. Because sociocultural understandings position bone marrow as a potential treatment for HIV/AIDS, people are willing to fuel the illegal trade in Giraffe bone marrow. Thus, the perceived risk of further declining health and/or death are significant enough as future potentialities (i.e., that which always is on the verge of becoming real) to motivate people to engage in behavior that has embodied, material consequences for conservation organizations.

Additionally, several conservation professional respondents, who possess significant amounts of cultural capital and thus status, indicated that many local residents, who relationally are seen as possessing less cultural capital and therefore less social status, believe, based on a history of their use and culturally situated understandings, that local medicinal remedies are more effective than ARVs. Thus, there is another discursively produced risk here, which is that using ARVs, rather than locally derived organic compounds, may actually result in further worsening health. Douglas' theoretical formulation suggests that this social pressure to utilize naturally occurring remedies is rooted in longstanding cultural histories. Indeed, there may be a normative judgment made should people eschew culturally valued natural healing options in favor of ARVs. This notion that local organic compounds can be used to treat emerging illnesses is clearly situated within existent cultural conceptualizations of and responses to health risks.

As the abundance of such plants and animals is reduced outside conservation spaces and protected areas further encroach on communities, thus further reducing the availability of flora and fauna to be harvested for such uses, a conflict emerges. That conflict, at least partially,

revolves around which set of risks to privilege. Poaching Giraffe can, itself, present a risk, that is the potential to actualize negative outcomes, i.e. jail time and/or monetary fines if caught, while not doing so may actualize a different kind of potentiality, related to worsening health. Due to the relative power of culturally-situated understanding of health vis-à-vis the influence of the nation-state's attempts at disciplinary and environmentality strategies, at least some residents foreground the potential risks to their health over the potential risks of disciplinary sanction. The last remaining large sources of the resources people have been relying on to address health issues are now largely inside protected spaces. Still, the culturally constructed demand for such resources remains strong. Thus, as a result, people are now turning to resources inside protected areas to respond to the perceived health risks of HIV/AIDS. Importantly, when talking about the poaching of animals for such uses, it is crucial to recognize that protected areas in Tanzania are not fenced, which means that such animals can be poached without actually doing so within the confines of a protected space. The pervasive logic of conservation, one revolving around domination of landscapes, the control of bodies, and which emanates from the West, is being challenged by longstanding normative understandings of health risks and the most efficacious ways to mitigate such risks.

When viewed through a Western biomedical ethnocentric frame, giraffe poaching may, at first, seem a superstitious behavior, however when viewed through the intersection of several theoretical conceptualizations of risk, which illuminates culturally situated understandings of risk and health, it makes sense. People see the embodied impacts of HIV/AIDS in seropositive community members as that which Beck terms the real and the ever-present potentiality of declining health and death associated with HIV/AIDS. In an attempt to

mitigate the potential future health risks associated with HIV/AIDS, people turn to the cultural constructs upon which the understandings of such risks are predicated, as Douglas suggests, and respond by mobilizing long-standing culturally situated beliefs about the efficacy of traditional medicine. Because discursively produced conservation policies and practices have attempted to use disciplinary power and ecogovernmentality strategies to monopolize access to and control over the resources to which people have long turned in an attempt to mitigate health-related risks, a conflict emerges that has direct, material consequences for both protected spaces and communities. Again, that which has not actually happened, and thus remains within the realm of discursive constructions of risk rather than embodied catastrophe, nonetheless has material consequences for conservation.

Conclusion

In this chapter, I have provided a multitude of examples to demonstrate that the HIV/AIDS epidemic is resulting in significant material consequences for the conservation industry in northern Tanzania. My data corroborate the existent body of literature asserting such connections, which has emerged from both the conservation sector and select scholars. As these combined works collectively illustrate, the epidemic is having significant impacts across the conservation spectrum and these impacts can be productively categorized as impacting conservation organizations, actors, processes, relations, and conservation's objects of protection. However, the HIV/AIDS conservation nexus literature, in which my research is grounded, has a significant commonality: it focuses on how material processes lead to material outcomes in conservation spaces. That is to say, they focus on impacts such as reductions in

workforce efficiency, the measurable financial impacts to conservation organizations, the manners in which healthy conservation actors are impacted by the illnesses and deaths of colleagues, the ways in which the fundamental conservation process of ranger patrols has been altered by HIV/AIDS-related impacts, and the increased reliance on natural resources found in conservation spaces as a livelihood strategy and source for cooking and coffin timber. However, there is another category of impact about which these works are collectively silent: the category of impact that results from understandings and perceptions of HIV/AIDS-related risk.

Drawing on sociocultural theories of risk, as articulated by Beck, Giddens, Douglas, and governmentality theorists, I have shown that discursively produced risk perceptions also result in detrimental material outcomes for the conservation establishment of northern Tanzania. In each instance, risk here is used to signify (a) the possible negative outcomes and impacts which may result from a particular case of (in)action, (b) the presence of a kind of moral enterprise, and (c) how negotiating discursive constructions prompts certain kinds of responses which I show to be detrimental to the conservation enterprise. However, the drivers of such risks and the responses to them are varied. In each of the three cases, I utilize all three different theoretical social scientific conceptualization of risk to illuminate how the complex and multi-faceted dimensions of what we colloquially call risk. A theoretically sophisticated and multi-dimensional understanding of how risk as potentiality can produce material impacts and outcomes is necessary to tease out these less-visible, yet equally powerful impacts to conservation. In this multidimensional conceptual apparatus, the first conceptualization I borrow from risk theory is Beck's (1992b) distinction between the real and becoming-real, a heuristic distinction I less clumsily situate as that between materiality and discursivity.

Understandings of risk are rooted both in material experience and discursive constructs and these discursively rooted risk perceptions are now fundamentally impacting the conservation establishment through understandings about the actualization of potentiality and attendant negative outcome, consequences, and impacts. Whether we are talking about how managers juggle the assignment of job duties in the face of the possible seropositivity of employees, how communities respond to the perception that conservation community liaisons may be HIV+, or how people harvest protected natural resources to respond to the potential health risks of HIV/AIDS, we are talking not about that which has already happened, but rather that which exists in a space of liminality, of potentiality. Douglas's (1992) articulation of risk defines it as a cultural construct used to stabilize and maintain group moral boundaries. Several of the impacts to conservation that emanate from understandings of and responses to risk result from shared cultural understandings and practices grounded in group social expectations and responsibilities. Through this lens, we come to see that conservation professionals believe that community responses to the perception of potential seropositivity among conservation employees is less about the fear of viral contamination and more about the policing of cultural moral boundaries. Likewise, the poaching of giraffes for their perceived medicinal value can be seen as part of a long tradition of using proximate natural resources to respond to perceived and embodied health risks. Foucauldian conceptualizations of risk, which center notions of governmentality and biopolitics, also help us understand the ways in which risk perceptions are mobilized to shape (inter)actions, particularly in relation to community-conservation relations and the utilization of natural medicines to attempt to treat perceived HIV/AIDS-related illnesses. This governmentality school of risk theory keeps notions of discursivity front and

center, which helps explain why some people are responding to the risk of potentially worsening health, related to what is perceived or known to be HIV/AIDS, through the harvesting and ingestion of Giraffe bone marrow. While my understanding of risk throughout the chapter remains consistent, I contend that it is not by mobilizing a single social scientific understanding of risk that we fully illuminate the complex dynamics at play. Rather, it is by examining risk as a phenomenon which is situated at the intersection of three distinct conceptualizations of risk that the multi-faceted nature of the intersections between health, discourse, perception, action, and the conservation enterprise can be persuasively explored.

The arguments presented in this chapter both acknowledge and corroborate the work of other authors who have explored the conservation and HIV/AIDS nexus, yet also move past their work to add another layer of complexity to the understanding of how HIV/AIDS and conservation interrelate in the northern Tanzanian safari circuit. In the next chapter, I will examine how conservation organizations in the northern safari circuit are responding to these impacts and how conservation professionals react to and mobilize such responses.

CHAPTER SIX

There Are Questions Science Cannot Answer: Resistance to ABC-Based HIV Prevention Interventions

Introduction

In the previous two chapters, I clearly demonstrated that most conservation actors articulate that intersecting and overlapping macrostructural forces are largely driving the HIV/AIDS epidemic in the northern safari circuit and that the epidemic has resulted in significant impacts throughout the conservation establishment. In this chapter, I take the voices, experiences, and expertise of northern safari circuit conservation actors as an analytical starting point to examine two competing, parallel discursive frameworks about HIV/AIDS: one relying on the ABC model utilized in conservation organizations' responses to the perceived impacts of the epidemic and the other an alternative discursive formation that challenges the basic tenets of the ABC doctrine. I explore what each of these frames means for how conservation organizations respond to the pandemic and actors perceive, experience, and make sense of HIV/AIDS in and around conservation spaces in northern Tanzania.

As introduced in the opening chapter, in reaction to the recognition of the epidemic's impacts within protected spaces, conservation organizations and NGOs have undertaken organizational responses to the epidemic. So, I begin by detailing the official organizational response of TANAPA to the HIV/AIDS epidemic. Conservation organizations' responses follow the reigning intervention, awareness, and prevention paradigm: ABC. In this individual-oriented schema, conservation actors are being taught that the way to respond to HIV/AIDS is through (A)bstinence, (B)eing faithful, and using (C)ondoms. Despite its ubiquity in conservation settings

in northern Tanzania, the efficacy of the ABC approach has been widely debated (e.g. Cohen 2003, Garvey 2003, Roehr 2005, Singh et. al. 2003). In terms of knowledge production vis-à-vis HIV/AIDS, ABC programs are aimed at informing and modifying sexual practices of those working in the conservation industry by providing them with knowledge designed to persuade them to shift their attitudes and practices through conceptualizing their individual corporeality as the appropriate site for intervention through frameworks of individual responsibility and personal decision making. As such, the ABC-based programs championed within the conservation establishment in northern Tanzania function as a form of discursive Foucauldian governmentality *par excellence*, albeit one that is not entirely successful.

After examining the official TANAPA response to the epidemic, I address how conservation practitioners understand and respond to the ABC framework employed by TANAPA. At least in part as a result of the rollout of such programs, and in conjunction with country-wide media campaigns, every single conservation actor with whom I spoke was aware of the existence of HIV/AIDS, knew that it is a deadly virus that can be transmitted through sexual contact, and was aware of the strategies of abstinence, being faithful, and using condoms as three ways to reduce vulnerability to the virus. However, the degree to which such knowledge has resulted in meaningful behavior change remains very much open to debate. As Goldstein (2004:59) points out, "AIDS education, per se, was working – at least in the sense of developing widespread levels of AIDS knowledge … but … AIDS-related behaviors continued much as they had before the epidemic." Despite these well-intentioned organizational responses and the resulting widespread knowledge, many conservation actors challenge or dismiss the relevance of ABC strategies. Almost unanimously, abstinence is viewed by

conservation practitioners in the area as impossible. The plausibility of being faithful is also called into question. Likewise, assertions made about condoms upon which the 'C' of ABC hinges are also challenged. This ABC-grounded attempt to orchestrate biopolitical control over conservation actors' corporeality is not entirely successful because it fails to directly respond to the perceived structural drivers of the epidemic, examined in Chapter Four, or to address situated understandings of the epidemic in any meaningful way.

In light of this persuasivity vacuum, many conservation professionals ascribe, at least partially, to an alternative discursive repertoire that calls into question, challenges, and even undermines the organizational response. This alternative narrative functions as a kind of Foucauldian subjugated knowledge, "an autonomous, non-centralized kind of theoretical production … whose validity is not dependent on the approval of established regimes of thought," such as the ABC schema, which Foucault (1980:81-83) might characterize as a manifestation of "the tyranny of globalizing discourses."[93] I utilize conceptualizations of the emergence of everyday discourse, formulated by de Certeau and Moscovici to argue that discursive constructions surrounding HIV/AIDS and ABC programs emerge not only from the awareness and prevention training programs that the majority of respondents have attended, but also from the social milieu of everyday practice, conversation, and hearsay, constituting a

[93] Importantly, I am not arguing that any conservation actors completely embody either of these coterminous discursive frameworks exclusively. Much as Garland (2006) asserted about conservation subjectivities, I here contend that the movement between these discursivities is much more fluid and that the vast majority of conservation professionals believed there to be persuasive characteristics of both frameworks. Thus, in conjunction, these sometimes competing narrative structures constitute a discursive repertoire upon which actors draw in context contingent ways.

series of de Certeauian tactics of resistance. These everyday discursive formations challenge the premises of the ABC model and, as such, render it far less successful than intended.

Conservation's Organizational Response to the Impacts of the HIV/AIDS Epidemic

In response to a recognition of the impacts discussed in the previous chapter and in a general climate of urgency and crisis regarding HIV/AIDS in Tanzania, during which then President Benjamin Mkapa declared HIV/AIDS a 'national disaster,' TANAPA initiated a series of ongoing targeted responses to attempt to mitigate the impacts of the epidemic in conservation spaces.[94] As one of TANAPA's HIV/AIDS Human Resources managers writes, "I do support that HIV/AIDS has affected much the human resources of the conservation society. If we don't take measures, it will be difficult to preserve our beautiful natural [sic] too, since capacity building cannot be done in a few days."[95] Representatives of TANAPA recognize the extent to which the epidemic undermines their conservation goals:

> It [HIV/AIDS] is a serious threat to the survival and development of … our organization … HIV/AIDS continues to kill staff and their families. The disease imposes a heavy financial and social burden of caring for the sick and it leaves misery and poverty in its wake. The epidemic is a serious threat to TANAPA's social and economic development and has direct implications on the social services and welfare. Tanzania National Parks must therefore fight the HIV/AIDS pandemic relentlessly. (TANAPA 2004:3)

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[94] Though I was told that the NgoroNgoro Conservation Area Authority has enacted a similar set of responses, during nearly a full year of attempting to meet with the appropriate NCAA personnel, I was repeatedly denied access. As a result, my efforts to corroborate such assertions of a response on the part of NCAA were unsuccessful. For that reason, this section focuses on the responses of TANAPA, with whose officials I was able to meet and under whose purview two of the three research sites for this project fall.

[95] Retrieved June 15, 2011 (http://www.frameweb.org/CommunityBrowser.aspx?id=2014&lang=en-US)

TANAPA's responses to the epidemic have been multi-faceted and constitute a major effort to minimize the impacts previously discussed, at least on paper. TANAPA has an HIV/AIDS workplace policy that addresses the need for prevention and awareness programs, including trainings and the roll out of condoms to park personnel, care and support for people living with HIV/AIDS, reaffirms TANAPA's political commitment to addressing the epidemic and to providing a safe working environment, lays out employment and recruitment testing policies and procedures related to HIV/AIDS, and details the organization's social support services. The workplace policy even asserts the need to involve communities adjacent to protected spaces in the program, "because they interact with TANAPA, especially in Parks. Therefore, they must also be given information and awareness on [the] HIV/AIDS problem," though the extent to which this has successfully occurred is questionable (ibid.:4).

TANAPA was the first large organization to roll out ARVs in the country, doing so even before the national government. A high-level employee of TANAPA, working on the organization's HIV/AIDS response, asserted that the organizational interventions discussed here have been a dramatic success, "for the people who are working in the parks, in 2007, there was not a single new case of HIV, no transmission." While this statement is dubious at best due to any number of complications with sero-surveillance in these organizational settings, it does represent the official TANAPA stance that their response to the HIV/AIDS epidemic has been a resounding success, an assertion called into question time and time again by those working inside parks in the northern safari circuit.

As a general indicator of this discrepancy, I offer the following contradictions. During the course of many interviews with high-level TANAPA HIV/AIDS and park officials, I was

routinely told of how regularly prevention education trainings were happening within the park. Most indicated that there was at least a single training per year. However, these trainings only target a handful of professionals working inside the park, as there is no way, logistically, that every employee can stop working to attend the training. But rather than holding several trainings with rotating participants to ensure comprehensive employee outreach, the organizations holds one training and then relies on peer education to spread such information amongst other employees. A trainer with an NGO that provided AWF-funded prevention trainings in northern Tanzanian conservation spaces quoted one of her training participants, who had said, "I have been working in XXX [park in the northern safari circuit] for many years, but the last training was at the beginning of 2004 and it was a half day training for a few of us."[96] Clearly, this is not in-line with TANAPA's rhetoric of consistent and comprehensive HIV/AIDS prevention training programs.

Secondly, although a TANAPA employee told me "we're even doing voluntary counseling and testing (VCT) inside of the parks," only two of the park employees working with whom I spoke had ever seen VCT in the park at organizationally facilitated events or had been tested in the park. Additionally, in a findings report written by one of the NGOs that conducted training seminars in the northern safari circuit parks, funded by the conservation NGO AWF, the trainer writes that, according to park employees, the most recent VCT campaign in the park was conducted in 2008 as part of the presidential testing campaign, during which only school

[96] Although I clearly have the document being cited here, I do not provide a full citation because doing so would breach the confidentiality of those in the NGO, who provided the report, and would locate the data in relation to a single park, which I repeatedly assured these participants would not happen.

children were tested, thus making it essentially meaningless for park employees. The trainers also quote a park employee, who states, “The few of us who were tested were not told about their [sic] status, but they gave the general result to the management office.” So, on paper, yes perhaps TANAPA is committed to VCT in national parks, but the process breaks down when it comes to actual implementation.

Another strategy being employed by TANAPA to try to mitigate the spread of the virus is widespread condom distribution. A high-level TANAPA HIV/AIDS employee told me that the organization, consistent with the workplace policy, is distributing large numbers of condoms inside of the parks: “we know that people are taking them [condoms] because we put them inside the toilets [bathrooms] and then when we go back to look they’re all gone, so we know that people are taking the condoms. No matter how many we give them, they finish all the supplies and there is more demand and people keep wanting them.” However, this assertion was questioned by a NGO HIV/AIDS awareness trainer, who conducted prevention and awareness trainings inside the parks,

> In one park, they said that they do have access to condoms and that they have been provided with them, but in another park, you will find that there are no condoms. Don’t be surprised if these people can go an entire month without ever seeing a condom anywhere …. This is why we thought the people [who work inside this park] were engaging in unsafe sex, because there just simply are no condoms available.

Additionally, the fact that condoms are disappearing is not, in and of itself, necessarily a gold standard by which to measure actual condom use. Regardless of these discrepancies, by developing workplace policies and procedures and, at least partially, implementing them, TANAPA has invested a significant effort toward trying to address and mitigate the impacts of the epidemic within protected spaces in Tanzania. However, these anecdotes reveal a

significant disjuncture between what TANAPA says is being done and what is happening on the ground. According to TANAPA's own HIV/AIDS workplace policy, a central component of the organization's response to the HIV/AIDS epidemic is a concerted effort to provide,

> Employees and families with appropriate and in-depth information on HIV/AIDS to enable them [to] protect themselves from HIV infection … [through] creating and sustaining an increased awareness on HIV/AIDS; promoting safer sex practices through faithfulness to partners, abstinence, non-penetrative sex, and condom use according to well informed individual decisions …. TANAPA should develop and implement education programs to ensure increased awareness and understanding about HIV/AIDS. Emphasis to be on information, education and communication for behavior change at all levels in all Parks. (TANAPA 2004:6).

In the name of meeting this goal of increased awareness and prevention trainings, TANAPA has trained a handful of its current employees to engage their colleagues regarding prevention strategies: TANAPA "even provides money for the seminars and people were even training trainers, where they took a few people from each park to be trained by the organization. Then when they came back to their parks, they held meetings in their respective working areas and they told all their workers about HIV. They came with condoms and everything."[97] The organization has also contracted trainings with a number of high profile HIV/AIDS and conservation NGOs to conduct trainings inside the parks. As one park ranger indicated, "there were … seminars, maybe two a year, about HIV, that the organization funded because HIV and AIDS have been seen as a problem. So they will bring an expert, who will come and talk about HIV and AIDS …. The seminars have been taught by people from NGOs that are dealing with HIV." The result of these concerted efforts is that, as one elite conservation professional told me,

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[97] While one of the parks where this research was conducted had previously had one such HIV/AIDS trained employee, he had been transferred to another park and there were no immediate plans to replace him.

> Everybody knows about HIV. Everybody knows. There have been seminars here and there have also been advertisements [*matangazos*], we have put up notices, they see programs on TV …. I think they really see that there is a lot of information and that the awareness is very high. TANAPA even has an administrative HIV department that deals with making sure that people know about HIV.

Were simply transmitting information the rubric by which success was measured, TANAPA's efforts would be most laudable.

These successful efforts of TANAPA to increase HIV/AIDS awareness among employees, which do not, in turn, result in the intended behavioral shifts, represent the central tension examined in this chapter: how exactly is it that essentially everybody working in conservation settings knows about HIV/AIDS, yet so many educated and aware people indicated that there have not been commensurate shifts in sexual practice, which is the clear and stated intention of such trainings? As TANAPA itself asserts (2004:3), "despite the fact that most of our staff are aware of HIV/AIDS and its mode of transmission, new infections continue."

The cornerstone of prevention strategies in the conservation establishment of northern Tanzania is information dissemination via prevention and awareness seminars. As Rugalema (2004:191) points out, "the major preoccupation … is to 'control' HIV through provision of information, education, and communication … premised on the Health Belief Model … which assumes that individuals will take responsibility or act rationally and desist from unsafe sexual behavior once they have been informed and educated." These information trainings focus on the individual-centered tripartite of ABC, which when translated into Swahili becomes ABK. "In the seminars, they tell us not to have sex [*acha kabisa*], to be faithful [*baki mpenzi moja tu*], and to use condoms [*kutumia condom*]." So, in an ironic twist, the original intent of the naming the technique ABC, that it is as easy as remembering your ABCs, is lost in translation as it

becomes ABK. On a fundamental level, this culturally embedded message of simplicity disappears. For additional reasons discussed below, many conservation actors challenge the viability and legitimacy of all three ABC strategies.

The ABC prevention regime fundamentally relies on the Knowledge, Attitude, Beliefs and Practices framework (KABP).[98] The KABP framework is the gold standard for HIV/AIDS-related survey questionnaires and has been used extensively in conducting HIV/AIDS education-related research. The idea is quite simply that "health-related behavior is determined by an individual's knowledge and attitudes. Thus if people know that AIDS is a deadly disease, and that using condoms will diminish their chances of getting it, they should be more likely to use condoms" (C. Campbell 2004:145).

TANAPA's HIV/AIDS policy clearly positions a lack of knowledge as central to the HIV/AIDS epidemic in protected spaces: "lack of in-depth and up to date knowledge about HIV/AIDS" is at the root of the problem and "TANAPA should develop and implement education programs to ensure increased awareness and understanding about HIV/AIDS" (TANAPA 2004:6). However, among conservation actors in the northern safari circuit in Tanzania, levels of HIV/AIDS-related knowledge are high and awareness is nearly universal, confirming previous studies in Tanzania, which show existing high levels of HIV/AIDS awareness (e.g. Baylies et al. 2000, NBS 2011). However, many still engage in unprotected sex, corroborating research findings that indicate shifts in sexual practice require more than just knowledge transfer (Campbell and Williams 1998). Even HIV/AIDS trainers who work in the area acknowledge that

[98] This framework, central to much HIV/AIDS research and policy development and implementation, is alternatively referred to as the KAP (knowledge, Attitudes, Practice) approach.

the ABC framework, which relies on this KABP-based information transfer to motivate behavior change, is problematic: “when we are teaching people about abstinence, or being faithful, or using condoms, it is becoming very difficult. You end up repeating yourself over and over again …. We can talk to people about ABK and teach them about it, but it becomes very difficult when it comes to implementation.” ABC prevention models, founded in the assumptions of the KABP model, target the individual as the site for intervention in a context where macrostructural forces largely shape the HIV/AIDS epidemic. “Though the wider sociocultural and socioeconomic contexts of HIV/AIDS are well recognized, many studies and preventative approaches are premised on the KA[B]P … model, which takes an individual perspective and emphasizes the protection of the self, not others. Messages such as the ABC refrain – ‘Abstain!,’ ‘Be Faithful!,’ ‘Use Condoms!,’ … - reinforce this” (Akeroyd 2004:90)

To understand how educated conservation professionals push back against the ABC tripartite, it is useful to interrogate this prevention triad as a form of Foucauldian governmentality, although it is not entirely successful. The ABC regime is explicitly about establishing the appropriate ‘conduct of conduct’ and attempts to function as a form of knowledge/power through which biopolitical power is positively produced in a way that is intended to govern the behavior of populations (Foucault 1976, 1991). Furthermore, it is an open attempt to induce actors to internalize biogovernance strategies espoused by experts and facilitate self-governance through tropes of responsibilization and technologies of the self. Abstaining from having sex, being faithful (read here as being monogamous), and using condoms all seek to mobilize individuals to self-regulate their behavior through individual action. I am not suggesting that these messages are never heeded and do not result in some

degree of behavior change for some people. Indeed, themes of personal responsibility vis-à-vis sexual practice were relatively commonly mentioned by many conservation professionals.[99] But, quite commonly, they were mentioned directly before or after talking about sleeping with multiple partners, condomless sex, or transactional sex. Thus, there was an inherent tension in the ways conservation actors spoke about sex: they knew very well what they had been told they should be doing and would mention these strategies as if they knew that was what I wanted to hear, but would then go on to elaborate about how they often did none of those things.

Conservation actors often straddle both discursive frameworks, simultaneously espousing the importance of individual choice and responsibility vis-à-vis sexual practice and the impracticality of abstinence and faithfulness. Techniques of biopolitical governmentality are only successful insofar as aggregates of actors, or populations, can be discursively produced as subjects made to internalize such techniques in the name of self-governance. Thus, in the northern safari circuit of Tanzania, the ABC tripartite, at least to a significant degree, fails to adequately function as such a technique of biopolitical governmentality due to the number of actors who are exposed to this attempt to regulate and govern their collective conduct, yet do not comply.

[99] Even for those conservation professionals, who appear to have taken the ABC strategies to heart, there was an inherent tension between their espousal of the fundamental importance of individual and personal responsibility and their acknowledgement of the macrostructural forces shaping the epidemic. Such recognition of macrostructural causality powerfully weakens the validity of the ABC approach, which is silent about such forces.

At least in part, this failure of the ABC regime in this setting is due to twin dynamics. The ABC strategies being taught as the vehicles for responding to the impacts of HIV/AIDS in the lived environments attempt to mobilize the individual as the site of intervention in an environment where (1) ideas of individuality are less central in Tanzania to understandings of responsibility than ideas of family, tribe, and community and (2) extra-individual forces construct and constrain the epidemic in particular ways and these forces are well understood by conservation professionals.

As elaborated in Chapter Four, for more than thirty years of single-party rule in Tanzania, President Julius Nyerere's conceptualization of *Ujamaa*, which translates literally as 'familyhood,' worked to construct and impose a secular national collective identity among Tanzanians. Prior to the *Ujamaa* period, relational tribal, kinship, patronage, and age-set identities characterized the identities of most Tanzanians. While I am not contending that these ethnic identities became meaningless, they were subordinated in the Tanzanian project to construct, "a secular national identity capable of uniting diverse social groups" (J. Campbell 1999:105). Particularly among older Tanzanians, who were alive during Nyerere's presidency and socialized to view themselves, first and foremost, as members of a collective, the legacy of such collective ideologies remains powerful. Although the age profile of those employed in the conservation establishment is trending downward as younger men and women graduate from post-secondary institutions and enter the profession, the majority of those employed in the conservation tourism industry are part of this older group for whom the legacies of *Ujamaa* remain powerful.

Additionally, at the community level, people are members of tribal and clan collectives. In fact, ethnic group identity remains such a fundamental collective identity category for Tanzanians, that when I asked someone, anyone really, who they were, the response was invariably their name, what tribe they were a part of, and where they came from. So, many conservation actors fundamentally conceptualize themselves as members of ethnic tribal and age sets and/or national collectives, in which individuality is subordinated to the needs of the group, yet, when it comes to HIV/AIDS-prevention strategies, these same people are being bombarded with ABC messages that contradict the social identity of community by attempting to mobilize the individual as the locus of responsible action. In response to a question about what it meant to be an individual in Tanzania, one middle-aged conservation actor put it this way:

> Ideas of individual responsibility are not nearly as important here [in Tanzania]. You know, you might be using a technique [ABK] that works very well there [referring to Western settings] because of people's ideas, but then the same thing does not apply here [in Tanzania] because of the background of people here. Even the idea of family … for us, the idea of family is very different. It is everybody from your tribe and your whole village. Here they all count as one family, while there [in the U.S.], it is you and then later on you might marry a woman, but if she leaves you tomorrow, then it comes back only to you. And this is a big problem for us. For you, it works because you really think only about yourself – you as John and me as Antipas. But here, we don't think about ourselves as individuals in the same way, so it is very tough. If you choose to be an individual here, the punishment behind it can be very tough. If you say, 'let me change myself to be standing as an individual,' then you will stand as an individual but there will come a time when you come across people who see this in a different way. They will say that you pretend to be *mzungu* [a white person], so then each and everything that happens to you is up to you. This means that people will isolate you, which for us is a very harsh punishment. For Westerners, they say, 'okay, provided I have my job and I can feed myself then I don't care.' But it doesn't work like that in Africa. You see, people really suffer psychologically when they get it wrong. If you want to pretend to be *mzungu*, fine, you will see how it works out in the end. Nobody is going to help you.

These notions of collective identity, centering the multiple rubrics of collective identity discussed above, show that identification as an individual is not nearly as important as

identifying as a member of a clan, tribe, or age set.[100] Thus, in an environment where ideas of collectivity largely trump individuality, particularly among those socialized under *Ujamaa*, the reigning attempt to respond to the HIV/AIDS pandemic relies on an understanding of individual responsibility and action that, quite simply, does not have significant purchase vis-à-vis social identities. Furthermore, as Swidler and Watkins (2007) remind us within the Malawian context, the normative centrality of intimate patron-client relations demonstrates the profoundly relational dimensions of individual identity, a dynamic which the ABC regime fails to account. By not taking ideas of collective social identity seriously and incorporating them into prevention strategies or redesigning such strategies around the understandings and values of those whose behavior and practices are the proposed site of intervention, such programs do not succeed. Something as profound as the manner in which we understand the relationships between bodies, families, and communities has significant implications for any attempt to shape techniques of biopolitical governmentality. In different settings, the ABC approach might work fine, but in Tanzanian settings where the tribal, clan, age-set, and patron-client relational identities are so formative and the legacy of *Ujamaa* remains compelling for many, such an approach is doomed to, at best, partial success.

Secondly, yet equally importantly, ABC approaches do nothing to address the perceived macrostructural drivers of HIV/AIDS, which conservation actors see as being at the root of the epidemic in the area as discussed in the second chapter of this dissertation. If you believe that

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[100] While not homogenizing or creating a single African identity, it is worth noting that collective identity is a powerful identity category throughout sub-Saharan Africa, as demonstrated in part by the salience of *Ubuntu*, a southern African ethical philosophy, which privileges interconnectedness. There is a Zulu saying: "A person is a person through other persons."

development, economic and gender inequalities, and social geographies are at the heart of the epidemic, then prevention strategies that do not meaningfully address these drivers in any way are unlikely to make much of an impact on your behavior due to the incommensurability between perceived causes and promoted prevention strategies. In an attempt to better understand the disjuncture between information-based understandings of ABC and resultant sexual practice, I now turn to these understandings.

Disjuncture between ABC-Based Prevention Techniques and Structural Drivers of HIV/AIDS

While none of the conservation practitioners with whom I interacted rejected the relevance of individual action in the face of viral vulnerability, intervention strategies that target solely the individual seem to miss a significant part of the story. At least in part, this massive disconnect has facilitated a dismissal of the ABC regime. This dismissal and the alternative narrative about ABC and the HIV/AIDS epidemic more generally coalesce into discourses that come to circulate alongside discursive constructions of ABC. As one young conservation actor summarized the situation:

> There a lot of people who are talking about education but I'm not sure if education is at the bottom of the issue. You are talking of education while the same time people are talking about their distrust of condoms …. So what kind of education you want to give them? Are they really able to live without sex? Never. Are they really able to remain with one lady? Never for the African man. You want three or four because it is a test. You know, if you are drinking milk with tea every day, that is bad, tomorrow you have to take black tea, and the next day coffee, you see? You need to change. Everyday they're saying ABK, ABK like a song. And you're telling these people that they need to use condoms because they will protect them but at the same time these people don't believe in condoms. What kind of education is that? You know, people are very quick to say we need to provide more seminars and more education with more ABK, but at the end of the day that's not really proving to be very effective. I think that we really need to find other strategies to try and address the same questions. Education suffers from the beginning to the end.

I am not saying here that all actors reject ABC all the time in favor of alternative conceptualizations of the epidemic. More commonly, there is something of a constant interplay between the two, complete with slippages and fluid transitions from one discursive paradigm to the other, even when some of the ideas expressed may be contradictory. Conservation actors, a particularly educated group of people in Tanzania, are able to pick and chose from the discursive repertoires at their disposal. For example, very often, those respondents who rejected at least one of the ABC measures, when asked what strategies they felt might be more effective in motivating behavior change, would respond that more ABC education was needed, despite having just spent extended periods speaking about why the ABC strategy was not working.

Among the conservation professionals with whom this research was conducted, there was a general consensus that abstinence-based prevention strategies simply do not work. It is not that anyone denied the fact that not having sex was an effective strategy for minimizing HIV vulnerability, but rather, as the quotation above suggests, not having sex is just not an option. One young male conservation actor said, “It is not possible to abstain … abstinence is totally impossible.” This research supports findings in other contexts that suggest that abstinence-based approaches do not significantly reduce vulnerability: "Evidence does not indicate that abstinence only interventions effectively decrease … HIV risk …; trials suggest that the programs are ineffective," (Underhill et. al. 2007:2). However, conservative ideological commitments among U.S. officials ensured that 33% of all HIV/AIDS prevention funding awarded as part of PEPFAR from 2003 to 2008, of which Tanzania was a major recipient country, had to be allocated to abstinence approaches. Thus, despite near universal mockery of the abstinence

strategy in the northern safari circuit, distant moral forces ensure that this non-starter remains firmly part of the HIV/AIDS agenda. Another conservation professional, a young female ranger offered an even more compelling challenge to abstinence: "to abstain is not easy … I'm not sure if there is anybody that will leave it [sex]. This is something that is just inside the human body." What more effective way to undermine the validity of abstinence could there be than to assert that it is contrary to biology. Vis-à-vis both of these challenges, the inclusion of abstinence as a prevention strategy actually weakens the overall intended message because once you are able to dismiss one of the strategies, the possibility of questioning the other prevention strategies, which are coupled with abstinence in the trainings, becomes more plausible.

The second strategy (Be faithful) is also problematic, in part, because of the patriarchal cultural norms, gender inequalities, economic inequalities, and the social geographies of mobility discussed in Chapter Four. All of these structural forces create a tension when examining the effectiveness of being faithful, [*baki mpenzi moja tu*]. Though migration patterns driven by conservation and tourism development have brought an incredibly diverse group of cultures and people into close contact, the area in which the northern safari circuit is located is dominated by the Maasai, Iraqw, Arusha, and Datoga tribes, for whom polygamous marriages are normative. Thus, right away there is an inherent tension between cultural understandings of bodies and property, as many interviewees indicated that what it means to be faithful, at least based on Western Christian conceptualizations, is necessarily impacted by marital arrangements that include more than two individuals. It is worth noting that being faithful becomes equated with monogamy as *baki mpenzi moja tu* literally means to have only one lover. *Mpenzi* is the Swahili word for lover, but is a word I never heard used to refer to a wife or

husband. So while the intended message of faithfulness, in settings like the northern safari circuit where marriage is nearly ubiquitous, is that one should only sleep with his or her wife or husband, the way the message is received is that people should only have one lover, that is only one partner outside of their marriage.[101] While other slogans, such as 'graze only at home', have sought to combat this implicit moral position about monogamy in Kenya, I did not hear the phrase in adjacent northern Tanzania. Thus, there is an implicit moralistic tone in the way that B has been mobilized in northern Tanzanian settings, which marginalizes existing social arrangements and this is problematic. Though there is a clear moralistic component to suggesting that polygamous relationships are somehow inherently more risky, as one respondent will contend below, Timmo (1988) reminds us that there is nothing inherently more dangerous about a closed sexual network that possesses more than two individuals, provided fidelity is maintained by all members of the group. But this lack of cultural accountability in the ABC formulation as it is understood in northern Tanzania, which cannot be viewed outside the moral rubric of Christianity, makes the dismissal of these prevention strategies even easier.[102]

Additionally, political economic conditions are intimately tied to sociosexual structures as the following middle-aged male Maasai conservation professional made clear:

> For example, in our culture you can marry many women and this is a problem. For example, me and my family, there are people who are fighting to be the most important and they think that they have to get more than one wife. Having more than one life is something that we see in a different light compared to other people. For us, to have many wives is a sign of success. If you have five cows and one wife that is fine, but as the number of cows that you have increases, you

[101] I am grateful to Mara Goldman for pointing out this ironic twist of language.

[102] It is beyond the scope of this chapter to provide an in-depth assessment of the impacts of Christianity upon notions of sexuality, HIV/AIDS, or responses to the epidemic. For a prescient discussion of precisely those dynamics, see Booker 2009.

> will find the one woman cannot take care of them all so you add a second wife. And if the number of cows that you have exceeds 20, then two women cannot take care of them and you need to add a third. So you find that the number of cattle that you have influences the number of wives that you will have. And this is a question of culture. When it comes to HIV, this is a problem because if we say that two people cannot be faithful, what happens when you have many wives? What about ten people? Can they be faithful?

Sexual relations in such polygynous contexts, both inside and outside or marriage are simply not understood by all within the moralistic monogamy:good/polygamy:bad dichotomy imposed by HIV/AIDS prevention schema. The combination of failing to take into account the fluidity of cultural understandings, their patriarchal underpinnings and the political-economic forces that contribute to them, makes dismissing B as a prevention strategy more plausible, thus leading to assertions like the following made by a middle-aged female ranger: "Men here cannot have just one partner. That is simply not possible." Also, because of patriarchal social arrangements that encourage and reward men for having multiple partners as a sign of power, prestige, and virility, there is an inherent tension between fulfilling the hegemonic masculine roles into which many men have been socialized and adhering to HIV/AIDS prevention strategies. This dynamic is additionally complicated by the Malawian work of Swidler and Watkins (2007), who contend that long-standing cultural norms regarding widespread patron-client relationships facilitate concurrent multiple sexual partnerships through a cultural rubric of acceptability. Indeed, if, as Watkins and Swidler contend, social respectability is in part predicated on participation in patron-client relations, which often take the form of transactional sexual relations, than this presents another powerful culturally situated challenge to the adoption of faithfulness as an effective HIV/AIDS prevention strategy. These tensions facilitate the articulation of various positions that serve to further undermine the possibility of any reliance on the strategies that conservation practitioners are taught to employ to reduce viral vulnerability. As one older male

conservation actor explained, depending on how one defines 'one partner' one can still have only one partner and still be at risk:

> If you're talking about a one partner, which one partner are you talking about? Is it the one you're with? What if you only have one partner and a person is already been affected? So having one partner does not work …. Even if you're married, you cannot be 100% sure that your wife is safe. When you go on a long safari, you will leave your wife at home, but then you find another partner there, so now again you just have one partner. If you're already married, instead of being in a safe place, we say that now it is 50-50. If one of you is being faithful while the other one is not being faithful, then again this is a problem. In this environment, HIV is a very big challenge.

By potently calling into question exactly what it means to have one partner, this respondent undermines the perceived plausibility of B as a prevention strategy, as he states that both men and women violate the tenet of fidelity. Although he does readily assert that while on a long work trip, it is common for men to find a short-term partner, importantly he also suggests that while on safari, the wife he leaves at home may not be faithful, which would negate even his most sincere efforts to abide by the B prevention strategy. This sentiment, of the ways in which duplicitous women threaten the sexual health of men, was expressed by other respondents, including a young male conservation professional, who said,

> To have one partner is very difficult because most of the ladies now are after money. They just go with you as long as the money lasts. To find a good lady is very difficult. In your country as possible, but in African countries, especially third world countries it is not possible. Everyone is after money and I've been seeing that. I've been with three ladies since last year, so I've experienced it. They were just after money. They will tell you that they love you, but at the end of the day it is just about money. Sometimes they will tell you that they love you and are faithful but they are sleeping with other men. Later on the guy will ask you, 'Do you know that your lady is walking [*kutembea na* literally means to walk with, but is euphemistically used to refer to having sex with] with somebody else?' You say no, but at the end of the day you find out that this is true …. Here there are no relationships. Every woman belongs to every man.

While, it is certainly a problematic overgeneralization to suggest that all women in the northern safari circuit are simply after money, such perceptions nonetheless inform how men such as this young man understand and respond to the HIV prevention strategy of being faithful. He is

asserting that no matter what he does or how faithful he may be with a woman at any given time, full control of his sexual health cannot be accomplished through a reliance on being faithful as a prevention method. This line of reasoning encourages people to dismiss faithfulness as an effective HIV prevention strategy.

Despite all of the various challenges mobilized against B as an adequate prevention technique, it remains important to note that, among male conservation professionals working in the region, most responded that they believed being faithful was the prevention strategy with the greatest potential for success. There was little commensurate desire to limit sexual partners or employ such a strategy, but many did suggest that it *could* work: "We have these three ways of trying to prevent ourselves from getting HIV – ABK . The effective one could be just the second one—*mpenzi moja*—that can work. 'A' cannot work and *kutumia condom*, well you know, we have this thing where I have my partner and I will use a condom on the first day and on the second day, but after a few days I will leave it."

The efficacy of condoms as a valid viral prevention technique is called into question in three ways. Intimately tied to the patriarchal social structures and gender inequality discussed above, women repeatedly asserted that they have very little negotiating power when it comes to condom use. Thus, condom use becomes a male prerogative, but men discursively position condoms as an impediment to enjoyable sex. Second, as alluded to above, many conservation practitioners contended that condom use may be common initially, but that it drops off quickly as sexual partners become accustomed to one another. Third, a set of counterABC-discursive constructions circulate that actually position condoms as a transmission vector for HIV and fungal infections.

Women's lack of negotiating power surrounding condom use, which results from structural marginalization vis-à-vis a patriarchal social milieu and resultant gendered inequalities is viewed, by many in the conservation establishment, as one of the structurally motivated drivers of the epidemic. Yet, it is simultaneously one of the reasons why promoting condom use as a prevention strategy is problematic. As C. Campbell (2004:145) points out, in patriarchal social environments, "simply telling people to use condoms will have little effect, because it ignores the broader social context of masculine and feminine identities which makes the negotiation of condom use far more complex." This sentiment was echoed time and again during the course of this research, most forcefully by women with whom I spoke. As this middle-aged female park ranger asserted:

> In our communities, men have the last word and I think that what they say is something that women cannot argue with. A woman does not have a say in these communities. And I can say that what facilitates this is the environment we are in, the cultural traditions, and a top-down approach where men are at the top …. Once a woman has gotten married and the man has paid the bride wealth, she no longer has any say and cannot tell him to use a condom.

So, if we rely on prevention strategies that hinge on the ability to insist on condom use in environments where women repeatedly assert, and as ample research has confirmed, they have little maneuvering room for such insistence—"Within our culture, if a man has decided that he's not going use a condom, there's nothing you can do to convince him to change his mind"—such a prevention technique seems a losing proposition. Unless, of course, men can be persuaded to adopt more widespread condom use on their own.

There were a minority of male conservation/tourism professionals with whom I spoke who did report regular and consistent condom use: "I do not have a girlfriend. So I'm using condoms because I don't trust them. [Laughter]. When I go to the pub and I drink and then I

pick a lady, then I have to use a condom because I don't know her and she doesn't know me. When I pick them, then I use condoms." This male respondent in his late twenties invokes patriarchal norms which objectify women and supports the assertions of the women above by suggesting that decisions regarding condom use are his to make. Thus, for some individuals, using condoms is resulting in safer sexual practices, but only in certain social contexts. Relatedly, while some men reported choosing to use condoms, others suggested that their decisions about when and with whom to use condoms were contingent upon situational factors. As one mid-level tourism actor explained:

> Men who are spending time with sex workers here in Karatu are afraid that these women have HIV so they wear condoms because they know that this is a sex worker and they know that everybody crosses here. So they know that they have to protect themselves. But if they are having sex with people who are not sex workers, maybe women who come from small villages, then they think that there is no chance of getting HIV and have sex without a condom. That is where the chance of getting infected is very high.

How and when one decides to use condoms seemed to follow how the man perceived potential risk and vulnerability in any given context.

Some of the interviews conducted during this research were conducted in a small car, as it was the only quiet, dry place to sit far out in the bush. During one such interview, we were in the car because it was raining outside. I was speaking with a young conservation ranger and began to talk with him about condom use. He started moving around in the confined environment, intent on getting his wallet out of his back pant pocket. After a few minutes of struggling to do so, he proudly removed a condom from his wallet and insisted that he always carried it around because that is what he had been told to do in the ABC seminars. We then had the following exchange:

> This year I have a condom. Always I should have a condom with me, because then if something happens I can use this. [Would you use it?] Sometimes, it would depend. Sometimes yes, sometimes no. [How would it depend? What kind of thing would happen that would make you decide you need to use a condom?] You know, I am married so, sometimes if my wife has a problem or she is breast-feeding, I will use it to avoid getting her pregnant. Then I have to use a condom. [So you use a condom so that your wife does not become pregnant, not so that you don't get HIV when you are in town?] Right.

Thus, despite internalizing the ABC message and carrying around a condom all the time, the decision making rubric around which choices concerning condom use were based was, for this young man, one which foregrounded unwanted pregnancies rather than HIV transmission. This reveals the failing of ABC prevention strategies to facilitate HIV/AIDS-related behavior change, thus demonstrating it is, at least a partially, unsuccessful strategy of governmentality.

While some men did insist on condom use, there were far more men who responded to such inquiries in the patriarchal manner of one young male ranger, who said, "I have my fiancé and she cannot tell me that I have to use condoms. No way." Many men reported that they did not use condoms simply because they did not like them, thought they smelled foul, and that they reduced the pleasure of sexual intercourse. Several respondents used metaphors such as eating a piece of candy with the wrapper on, eating a banana without peeling it, or covering up a very nice suit with a raincoat to convey their preference to have sex without condoms. Another went so far as to suggest that condom use fundamentally altered the sexual act:

> There are men who say that if they use a condom they cannot get an erection, but when they remove the condom they can get an erection without any trouble. Others say that when they use condoms they are only having sex with themselves [*anajitomba mwenyewe*] and that they are not having sex with women so you will find that they have to remove the condom so that they can be having sex with a lady instead of themselves.

While this unique conceptualization of how condom use foundationally changed sexual practice, in effect making it not the sex act between a man and a woman, which serves to reinforce gendered prestige, was not the norm, its general sentiment was. By and large, men

viewed condom use as something that makes sex far less desirable and less of a vehicle through which to assert masculine power. In environments where the domination of bodies through displays of such masculine prestige is highly sought after, this functions as a significant deterrent to condom use.

Additionally, a commonly reported dynamic relating to condoms as a form of HIV prevention was their initial use, but that such use tapers off with familiarity:

> *Kutumia condom* … you know, we have this thing where I have my partner and I will use a condom on the first day and the second day but after a few days I will leave it and we do not even go to test the blood, whether negative or positive, some people still have the element of forgetting. In the human brain, there is something like *kuzoea* [to become accustomed to something], which is like you've been together today and tomorrow and because we are together every day I assume that you are not affected. So *kuzoeana* [becoming used to each other] is a big problem because today a condom tomorrow condom but the third day, you say no that there is no need of using condoms.

This dynamic of familiarity ending condom use was frequently mentioned. While the shift is, within the space of emotional attachment and intimacy, a very understandable one, it nonetheless poses a significant obstacle to the implementation of condom use as an effective long term HIV/AIDS prevention strategy. The universal promotion of condom use does little in situations where, “for me, myself it comes down to trust because if you have sex with a woman several times ,you think that it is okay now and that she is safe. I don't know how it comes, I have to say the truth, but it comes because she's your girlfriend and you are doing this every day,” as one young male park ranger told me. After repeatedly hearing sentiments such as these, one has to questions exactly what the long term efficacy of ABC prevention strategies are. A strategy that leads to short term, inconsistent safer sex simply is not effective in the intended way.

In some situations, the discontinuance of condom use signals a growing trust of intimacy. As one young male conservation professional told me, “Maybe you will use a condom today tomorrow and another day but after two weeks, she will refuse to use a condom because she will say that we trust each other. Most people know about these things of condoms but after a while after short time of having sex together, you begin to trust each other and stop using a condom.” Thus, sometimes it is the trust that accompanies familiarity that reduces condom use and this would seem logical. However, paradoxically, as Bujra (2000a) argues, in the Tanzanian context, many times suggestions of condom use are viewed in a nearly polarly opposite light. They are not positively viewed as a sign of caring, responsibility, or positive health seeking behavior, but are rather perceived as an indicator of promiscuity, immorality, or lascivious, untrustworthy behavior. One HIV/AIDS trainer in the area suggested, “if a woman comes and starts talking about condom use then the man, who she is with, will say that she has already taught herself about prostitution.” This dynamic, also identified in Malawi by Tavory and Swidler (2009), presents yet a further complication to notions of straightforward condom use as a preventative strategy insofar as it means that suggesting condom use actually may serve to introduce dimensions of judgment or doubt into otherwise sound relationships. Thus, while condoms, on the surface, are an intervention meant to reduce viral vulnerability, notably in environments where there is no trust, the very use of them can, in some circumstances, paradoxically undermine established trust and work against the very forces they aim to promote.

Furthermore, despite the seemingly straightforward nature of ABC strategies, for many the inclusion of condoms as a fundamental element of the triad is problematic due, in part, to

intense religiosity: “as a Roman Catholic, to me using a condom is the same as stealing from someone. It is a cardinal sin that one just does not commit.” As the same middle-aged female conservation professional strongly went on to argue, “the problem is that Western people come here and tell us we must use condoms, but for me, I do not like people telling me or my family what we must do.” As I contended above, once you can dismiss one of the three linked prevention strategies, dismissing the other two becomes easier as many respondents intimated. Thus, the PEPFAR-mandated inclusion of abstinence education for some and the reliance upon condoms as a protective technology for others diminish the viability of the prevention triad as a whole.

What all of this means is that despite perhaps the best of intentions when it comes to ABC prevention strategies, the theoretically passive intended recipients of this information, who are supposed to absorb it like a sponge and then use such newly gained knowledge to engage in safer intimate practices, are not so passive. Rather, as I will show below, they are exposed to these de Certeauian strategies of prevention, through a rubric of Foucaldian biopolitical governmentality that attempts to mobilize technologies of the self, yet they respond, not with the desired internalization, self-regulation, and commensurate behavior change, but rather with de Certeauian tactics, counter-maneuvers that rearticulate the intended prevention strategies in novel ways, ways that can be seen as more seamlessly engaged with everyday understandings, practices, and structural forces. From the outright dismissal of ‘A’, to the recognition of the reduced applicability of ‘B’ in light of structural, politicoeconomic, and gendered forces, to the decreased relevance of condom use vis-à-vis patriarchy, hegemonic masculinity, and perceptions of trust, conservation practitioners in the

northern Tanzanian safari circuit are not passive receptors of health-related information, but rather are active producers of understandings that work for them in their lives, but do not always work so well in light of intentions of ABC programs. In part, this rearticulation draws strength from a desire to make personal choices and not simply be told what they should be doing, particularly in an arena as profoundly intimate as sexual practice. As a middle-aged female mid-level conservation professional powerfully expressed, "Our bodies are our own and I think that is why you see a lot of resistance toward what people say regarding ABK and condoms."

While some did report a level of behavior change regarding sexual choices and behaviors, often those reported changes are not in line with the desires of ABC prevention strategies. No one I spoke with, not a single person indicated that prevention trainings had induced them to pursue abstinence. Furthermore, those who indicated they practiced monogamy said they did so due to religiosity, not as a result of ABC-based information. Those who had been persuaded to take up condom use as a result of ABC trainings often only did so inconsistently, at the beginning of a new relationship, or when they were concerned about impregnating a sexual partner. Thus, while there was a distinct minority of people who very earnestly articulated discourses of self-governance and individual responsibility based largely on interventions from experts, most respondents fell somewhere more in the middle, or even on the opposite side of the spectrum. Like the respondent discussed earlier who carried around a condom because he was told to do so, yet seemed to miss the point about when, and based on what motivations, to choose to use a condom in the face of the epidemic, many respondents expressed a sincere mixture of elements of ABC, with undertones of personal responsibility, but

simultaneously also asserted the impossibility of abstinence, the unlikelihood of being faithful, and the obstacles surrounding condom use as described above. But importantly, they also articulated a series of discursive narratives that more powerfully challenge the underlying narratives upon which the ABC regime is premised. These discursive constructions and where they come from constitute the final section of this chapter. In order to explain how ABC largely fails as a set of biopolitical techniques of governmentality intended to produce the desired internalization and replication, I draw on two theoretical conceptualizations of everyday discourse, those of de Certeau and Moscovici. Thus, it is to these theoretical frames that I now turn.

The Practice of Everyday Discourse

Within the context of the northern Tanzanian wildlife conservation establishment, ABC prevention trainings are sanctioned, facilitated, and funded by conservation organizations, including TANAPA and the NCAA, and international funding agencies, notably USAID. Most commonly, they have been outsourced to HIV/AIDS NGOs working in the area, as they are seen as content experts. It is the massive, influential conservation NGO AWF that has been at the center of this process in northern Tanzania. AWF received a large sum from USAID to address HIV/AIDS in Tanzanian protected areas, as discussed toward the end of Chapter Three, and subsequently outsourced the actual training to two health-related NGOs. Regardless of who does the actual trainings, such prevention awareness sessions fall squarely within what Moscovici (1984) terms the reified universe of science, which manifests and solidifies knowledge as scientific by relying on a repertoire of controlled logic, language, and

methodologies.[103] Such constructed knowledge relies on the characteristics of Foucauldian technologies of governmentality, including the mobilization of expert knowledge claims, to further strengthen its claims as a kind of privileged, science-based knowledge. As the ABC prevention paradigm mobilizes each of these characteristics in the service of, what is intended to appear as, factually based objective scientific knowledge, one to which nearly all of the conservation practitioners in the northern safari circuit have been exposed, the intended internalization is not particularly successful. Additionally, as many conservation practitioners pointed out, "right now all of the information that we get about HIV comes from the outside … we learn all these things from experts." These prevention strategies function as techniques of biopolitics and governmentality within Moscovici's reified universe of science and have, as a hallmark, a fundamental reliance on scientific discourses and the employ of experts to convey such information to the general public. However, the express use of expert status to bolster scientific knowledge was not always advantageous within the context of ABC prevention strategies. One high-level conservation manager in the area responded to a question about the efficacy of ABC prevention programs by actively pushing back against such expert knowledge, with the response, "there are questions that science cannot answer." Another respondent went so far as to question the legitimacy of experts and their knowledge:

> Some of the seminars that you find are rubbish because many times the people who are running the seminars, you don't know their backgrounds. Sometimes you find that you even know more than they do. You go to the seminars and they will explain things to you when really

[103] Moscovici elaborates this distinction, between the reified universe of science and the consensual universe of social representations as part of his framework for a grander theory of social representations. While I do not make use of much, or even most of this larger theoretical formulation of social psychology, his distinction between these two spheres of discursive knowledge production is useful for the argument presently being made.

> they don't know what's going on. For my own perception, I think a big percentage of these people who we call HIV trainers do not have any qualification to be in that position.

Though this represented the most direct challenge to expert authority I heard during my research, there were a number of other respondents who were skeptical of prevention trainings.

Instead of passively accepting and internalizing the ABC prevention strategies in response to exposure to the ABC triad via the reified universe of science, they are also exposed to, and participate in, what Moscovici (1984) terms the consensual universe of social representations. In this space of public discursive knowledge production, all actors (what could be characterized as the lay public), not just those positioned as experts, make use of and rearticulate emergent understandings, including those from the reified universe of science, to construct and subsequently disseminate narratives that come to form the basis of what Moscovici (1981) describes as common sense. These common sense understandings then circulate both informing and being informed by the narrative explanations that circulate within this consensual universe of social representation. Through the course of this research, I came to see that this discursive knowledge production, much of which is at odds with the expert generated discourse of ABC, occurs largely through what de Certeau (1984) describes as the practice of everyday life or what Bourdeiu positions as the embodied product of habitus.

This final section of the chapter outlines how conservation practitioners produce, circulate, and embody HIV/AIDS-related understandings that undermine the premises of the ABC regime and then briefly addresses the two most prevalent narratives that emerge through discourse: (1) alternative discursive constructions of condoms and (2) a coherent narrative that positions both the HIV virus and ABC prevention strategies as EuroAmerican inventions

designed to further historically situated relations of domination. The combined force of these discursively produced understandings serves to further significantly undercut the perceived validity of ABC intervention schema and, as such, necessitates a more earnest investigation than has been granted up to now. As Rugalema urges, "lay discourse has to be researched, analyzed, and internalized into HIV control and mitigation programs, otherwise externally conceived programs are likely to record minimal achievements," which is exactly what this research indicates has been happening (2004:193).

Rugalema discusses the socially embedded nature of the manner in which residents of the Bukoba district of Tanzania make sense of and understand the HIV/AIDS epidemic in ways that may not always be consistent with expert driven scientific understandings of the epidemic (2004). Though not stated explicitly, his position implicitly asserts that it is through the mechanisms of lived experience and colloquial usages of language that these understandings emerge. As I stated above, during the course of this field work, I became increasingly aware of the tension that allows educated professionals, who have been exposed to HIV/AIDs prevention seminars, to still espouse views of the epidemic at odds with those put forth in such seminars. As Rugalema argues, these understandings emerge, quite simply, from the cumulative effects of living life outside of seminars—from experience, conversations, hearsay, our friends and colleagues, etc.—from what de Certeau labels the practice of everyday life.

In his famous chapter "Walking in the City," de Certeau contends that the city is, in fact, a product of apparatuses of power, an effect of strategies of government, implemented by municipal planners, architects, builders, and policemen, among others. Strategies, for de Certeau, are rather analogous to Foucault's techniques of governmentality and can only be

implemented by “subjects with will and power,” and function as a vehicle to assert dominance over and objectify social environments (de Certeau 1984:39). He goes on to argue that scientific calculability and knowledge often function as a form of strategy. Understood in this way, the ABC regime, put forth in HIV/AIDS prevention seminars, functions as an exemplary de Certeauian strategy, insofar as these techniques work to impose a particular order within social environments. Yet, even as de Certeau acknowledges the power of such strategies, he is quick to counter that those who represent the intended audience of such strategies are not simply passive consumers and can counter intended strategies with what he calls tactics, or contra-strategic acts of resistance. Much as a walker in the city can, for all of the street signs, crosswalks, and intended order of such a planed environment, resist the imposed order by employing tactics such jaywalking or choosing routes based on illogical fancies, so too do conservation professionals find room to maneuver amongst the strategies of ABC prevention regime through the employ of a variety of tactics. The counter-discursive constructions of HIV/AIDS knowledge that solidify outside of ABC seminars represent a field of tactics through which actors resist technologies of biopolitical governmentality firmly entrenched in the reified universe of science. They do so, as de Certeau points out, through quotidian practice within the consensual universe of social representation. In the present case, the tactics used revolve around language and interaction, rather than walking, but the effect is the same. The imposed strategies, which ought to shape understandings and subjectivity, are resisted by the talker/walker, who relies on various tactics to assemble understandings of her place in the social environment, which may be at odds with the reified universe of science.

Despite attending seminars that attempt to immerse actors in the individualized logic of ABC, what is said in passing conversation among friends at the bar or told as a story that happened to a friend of a friend seems, in fact, to carry more persuasive explanatory weight than the seminars, as one middle-aged male conservation practitioner points out:

> These are the teachings that they get from the streets. What people say to each other casually can be very persuasive and so then they believe them …. When somebody is, for example, out drinking and they are with their friends and somebody's telling them stories …. You know, it's difficult to just sit in a class and listen to somebody who's talking in the front there. It is very different from relaxing with somebody and having a beer and somebody's telling you a story about this or that and giving you examples, you see this, you see this, you see this, then when somebody tells you that these problems come from the condoms, I think it's more easy to agree with them in the village than in the classroom or in a seminar.

As this manager makes clear, every day practices, including conversations with friends and colleagues inform understandings in more persuasive ways than the interventions designed to motivate behavior through ABC. The fracture in the HIV/AIDS prevention edifice that emerges as a result of the disjuncture between the perceived structural drivers of the epidemic and the incommensurable individualized interventions strategies taught in ABC settings is exploited as this gap is filled with an alternate series of discursive constructions which, for conservation practitioners, integrate more fully into their embodied lived experiences, observations, and existent understandings. As Moscovici (2005:xi) contends, "Everyday judgments and explanations form a normative interrelation which determine our thoughts and experiences in everyday life …. Most of our perceptions – what we see and hear – our beliefs and our information about people and things, are not directly factual. We acquire them from other people, via conversations." One conservation actor in the area expressed a similar idea when he said, "I think that when people are just sitting and chatting and taking some drinks like we are here, that is where it these concepts of the dangerous nature of condoms come from.

People are very likely to believe the person sitting next to them at the table because they are just like you."

Although both classrooms and causal encounters with friends constitute social environments, ABC trainings possesses an unambiguously authoritarian, didactic quality, while conversations over drinks, in a vehicle, or while walking in the bush do not. ABC trainings mobilize expert knowledge to reinforce its gravitas, while quotidian interactions do not. ABC attempts to mobilize the centrality of individualism and personal responsibility in an environment where for most of the past fifty years the individual has been subordinated to the collective, while informal conversations between friends mobilize exactly this idea of community. One male senior protection manager described the power of friendly enunciations as the source of understandings in this way: "when we are on patrol, we are always discussing things and joking. HIV is now something that everybody is aware of and when we are out walking in the forest on patrol, sometimes you will hear rangers talking about HIV. These men listen to each other." This dynamic of being influenced by our peers is one with which we are all familiar, yet that familiarity seems to elude the best intentions of those developing and running ABC seminars. As another young male wildlife conservator responded to a question about where understandings regarding condoms originate:

> I really don't know, but maybe somebody used a condom once and then got HIV or somebody sees his relative and that relative tells him that he has been using condoms …. Maybe that is where they get their information, from a story about someone else's experience. Or maybe just from their experiences in the case of the rashes [many indicated that the spermicide inside condoms or the latex itself result in skin rashes]. It is very true that people will believe something that they hear from a friend about why they do not use condoms, you know? Then they come into a class and here is somebody telling them that they need to use a condom, but they resist because they say, 'wait, what about my friend who got a rash from using a condom?'

Note that this educated, savvy conservation practitioner implicitly challenges discursive constructions of condoms by leaving open the legitimate possibility that one could, in fact, use a condom and still contract HIV. In this interview quotation, we see the tension between the consensual universe of social representations, in which understandings are such that the possibility exists for one to use condoms and still contract the virus, and the reified universe of science, in which this possibility is forcefully denied. He also implicitly asserts the validity of condoms producing skin rashes among men, a phenomenon that I do not dispute. Only one male respondent with whom I spoke asserted a personal experience a condom induced rash, but most of them were adamant that at least one of the close friends had. Both of these themes are central to the counter-discursive production of understandings of condoms, which, when mobilized, work to undermine the perceived legitimacy of condoms as an effective HIV/AIDS prevention strategy. It is to these everyday discursive constructions of condoms that I now turn.

Alternate Discursive Constructions of Condoms That Challenge ABC

Despite the proliferation of mass media HIV/AIDS campaigns and ABC prevention seminars, many respondents spoke of the continued stigmatization of openly discussing sex, sexual practices, or HIV/AIDS, particularly in the rural areas of northern Tanzania, as confirmed by numerous studies conducted in Tanzania (e.g. Bujra 2000a, Setel 1999). As one young male conservation professional put it:

> Let me think, I remember my first girlfriend, I got her while I was in form three, so I was like 17, but I would say that it was like a government secret, top-secret. You know, to our parents this was not good for the culture, it was not considered good behavior for Tanzanian boy or a Tanzanian girl to even think of these sex issues. In some families, if the boy even mentions a

> girl's name, it will be treated as a first-degree murder case, so we grew up doing things in very underground ways, top-secret.

This sentiment was echoed by many respondents and carries over into the realm of condoms, as indicated by another young male conservation professional, who stated, "in Karatu, you are not really free to talk about condoms," and "this is not a topic you can go straight into. It is not like we say, 'okay, the topic of today is condoms.' No." This continued silence facilitates a situation in which everyday discourses, spoken in hushed tones among friends over beers while on leave or out in the bush on patrols, acquire even greater significance, because as one young female HIV/AIDS trainer in Karatu put it, "talking involves rumors and rumors spread very quickly." Furthermore, there remain significant socioeconomic and institutional barriers to consistent and correct condom usage in Tanzania (e.g. Mnyika et al. 1994, Setel 1999, Stambach 2000). It is in this atmosphere of selective silences that discursive constructions of condoms, which challenge the ABC regime, emerge. These narratives include the idea that condom use produces fungal rashes, that not all condoms are equal and if you can only afford the inexpensive ones, you may as well not use them due to their problematicity, and that the HIV virus is actually found inside condoms.

Among the informants for this research, there were a large number who indicated that condom use results in rashes. One middle-aged male driver-guide told me, "this fungus that you get from condoms, I have heard about it many times. Like how we are talking here, I have talked to many people who have been affected by skin rashes. Even myself, I've used condoms and had problems with skin rashes on my penis, so I stopped using them." Note that this interview respondent invokes both personal experience and discursive formations that result from everyday practice to bolster his claim that condoms produce skin rashes. Of the more than

45 men whom I queried about such rashes, this was the only man who indicated that he had personally experienced this issue. However, more than half of the men asked indicated that they had either heard of this phenomenon or knew men to whom it had occurred: "I think that it is true because some people have different skin and they say that when they wear condoms, they are getting an infection from the condom. Many men are talking about this." Again, everyday discourse, talking, is identified as the source from which such understandings emerge. In an attempt to explore the veracity of these claims, I spoke to several HIV/AIDS trainers in the area about it and several indicated that, yes, the appearance of rashes was more than a rumor. However, none knew with any certainty if it was a result of latex allergies, a reaction to the spermicide used in these condoms, the poor quality of the latex, the long, hot transport of the condoms that may alter either the spermicide or the latex, or the use of expired condoms (although each of these was offered as a possible explanation).

That some men, and women it was asserted, are experiencing skin rashes as a result of condom use is not in question here as I take the claims of my respondents at face value. The point is rather that more than half of the respondents I spoke with had heard about this problem through conversations and that, as such, it comes to represent a significant challenge to the presumably straightforward instructions to use condoms, which is a cornerstone of the ABC prevention schema. Yet, interestingly enough, like some of the embodied impacts to conservation discussed in the previous chapter, for those who have not personally experienced the rashes, but take the phenomenon into account in sexual decision making, this threat from condoms exists only in a space of potentialities. Regardless, when large numbers of men who have been to ABC prevention seminars assert that condoms can result in rashes, something

that emerges through a process of every day discursive construction, the result is a perception that seriously undermines the efficacy of condom use as an effective HIV/AIDS prevention technique.

A second condom-related issue that undermines the efficacy of the ABC narrative concerns condom branding and pricing. The ubiquitous condom brand in Tanzania is *Salama*, which literally translates as peace or safety. *Salama* condoms now possess a market share above 90% in the country (FHI 2011). This massive market share was achieved through subsidies and rigorous social marketing campaigns designed to reach all sectors of Tanzanian society, including in non-traditional retail outlets including kiosks, bars, and guest houses (Agha and Meekers 2004).

Figure 2: *Salama* Brand Condom Advertisement in a Local Bar in Karatu, Tanzania.

While, as Eloundou-Enyegue et al. (2005) point out, the brand name was chosen to promote images of reassurance and safety in the face of a grave bodily threat (HIV), ironically the effect among male conservation professionals in the northern safari circuit has been an opposite one. Indeed, the packaging shows us a young couple, in a loving embrace and the caption reads "If you really love her/him, you will protect her/him." Socialized into a profession that valorizes risk taking and the domination of landscapes—and as an extension, bodies—male conservation professionals who are looking for pleasure, control, and excitement are not drawn to a product that is explicitly branded to promote peace and safety. While *Salama* packaging imagery typically consists of a younger couple in a loving, committed looking embrace, other brands, such as Rough Riders, which feature a seductive looking, scantily clad young white woman on the packaging, were, among this research's respondents, viewed as more desirable products. Thus, for many male respondents, the marketing strategy, imagery utilized, and cognitive associations with the brand name do not necessarily mesh with the ideas that men have about what they are looking for in a sexual encounter.

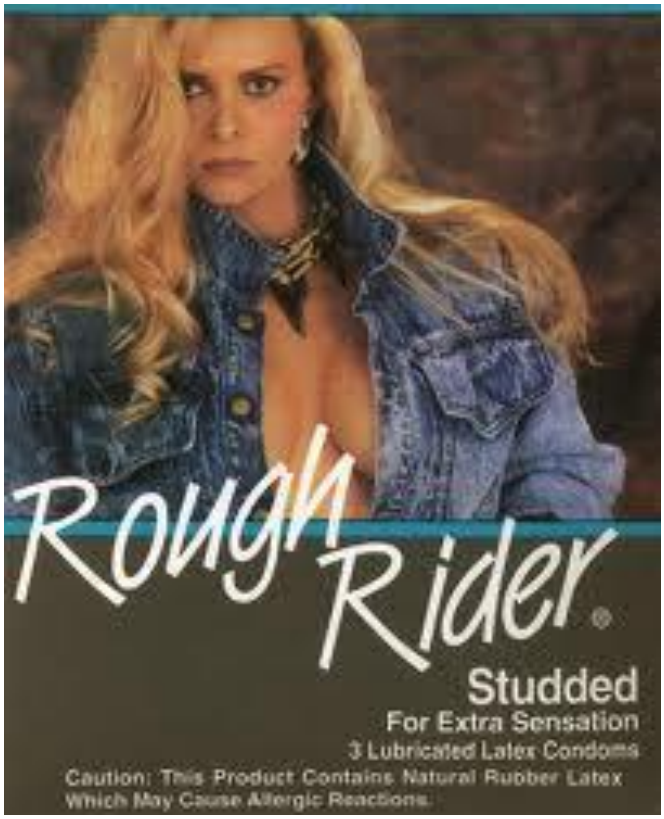

Figure 3: Rough Rider Condom Branding

Furthermore, among the greatest displays of masculine prowess among those I spoke with would be seducing a white woman. So, in important ways, even the branding we see on condom advertisements informs a particular kind of lay discourse.

Relatedly, *Salama* condoms are heavily subsidized by both international and national donors and, as a result, are sold in packages of 3 for 100TSH, about 6 US cents. Thus, a condom costs around two cents, when people pay for them. The point of this pricing is twofold: firstly, it is designed to be inexpensive enough to be affordable to even the lowest income segments of the population and secondly, in theory it facilitates those adults who have been persuaded via media campaigns or prevention seminars of the value of condoms to be able to buy them

regularly, thus promoting consistent condom use. The idea is that if condoms are free in a world thoroughly infused with capitalist understandings of value, where paying for something means it must be a better product than one received for free, then people will be less likely to use them because they attach no monetary value to them. As Family Health International, an INGO involved in condom rollout in Tanzania reports,

> While hundreds of millions of condoms have been distributed free of charge throughout the developing world since the HIV/AIDS epidemic began, social marketing is built upon the concept of promoting the value — and thus increasing the use — of products such as condoms by charging a price for them. Customers are making an investment in their health when they buy condoms and are much more likely to use a product that they've paid for. (FHI 2011)

The irony with this strategy vis-à-vis *Salama* condoms is that the price is so low that the opposite effect has occurred—respondents perceive them to be of substandard value because of their extremely low cost in relation to other imported, much more expensive brands. As one respondent indicated, "people think those condoms that are sold for a very low price have got something wrong with them." Further contributing to this perception is the fact that at ABC prevention seminars in the area, *Salama* condoms are almost always given away for free. In conversations about condoms, interviewees frequently lamented the poor quality of *Salama* condom. One middle-aged male ranger told me, "some of them are really good quality and some of them are not. You hear people saying that *Salama* condoms have a lot of fluid inside and that these condoms with a lot of fluid will give you rashes. The problem is that when you find those condoms that are very good, they are also very expensive. You know, the cheap condoms here are only *Salama*." Thus, the theory behind the social marketing of inexpensive condoms backfires as conservation professionals do not perceive *Salama* condoms to be of value because they have a price attached to them, but rather perceive them to be of inferior

quality because of the very low price attached to them. Additionally, this respondent makes a connection between the most readily available condoms on the market and the propensity for developing skin rashes, in effect, further reducing their desirability on the open market. Brent (2009) argues that the tremendous price subsidy for *Salama* condoms, which replaces the actual cost of bringing *Salama* condoms to market from between 600-2,000TSH, depending on the location of the market and associated transportation costs, to 100TSH is counter-productive vis-à-vis perceptions of *Salama* brand condom quality. He contends that a price reduction, which less drastically reduced the price of such condoms, should actually result in more positive perceptions of the condoms' quality, but it does not. Considering that *Salama* has more than a 90% market share, the vast majority of the condoms available for purchase are believed to be of such poor quality that utilizing them is seen as problematic. One young male conservation professional told me:

> When you use a condom that only costs 100TSH, you have to think it is not as good as a condom that costs 1500TSH. You are really afraid the whole time that it's going to burst …. People say that they are using condoms and that then it bursts, so it's better not to use them at all. If you're using condoms and it bursts, then what is the next step? You try to protect yourself by using a condom, but then it breaks. So then what is the next step, you have to remove it and put another one on, and you can be affected when it bursts, so why?

This perception that *Salama* condoms are prone to breaking is one that was supported during discussions with HIV/AIDS trainers in the region and has been documented in another Tanzanian context by Rugalema (2004). One woman who runs an HIV/AIDS NGO in a remote region of the northern safari circuit said that she has seen and heard stories of many *Salama* condoms breaking, a problem she attributes to physiological incompatibility and very long transportation times in extremely hot weather, which compromises the integrity of the latex, thus making it more prone to breaking.

While visiting a district HIV/AIDS Program office in one of the areas adjacent to northern Tanzanian protected areas, several male municipal employees lamented the propensity for breakage among *Salama* condoms. In an attempt to demonstrate that latex condoms can withstand significant forces, and to build rapport by joking and having fun, I asked a district HIV/AIDS program employee for a few condoms, which we then went outside and filled with water from a spigot, drawing quite a crowd of inquisitive men. Amid raucous jokes and laughter, we proceeded to fill two condoms with approximately 30-40 liters of water, engorging them far beyond the size of any penis. While a handful of the men present did appear to view the condoms as less likely to break after the experiment, another responded that "filling a condom with water and having sex with one are different. When we have sex with them, they still break," while others nodded their heads in agreement. It is precisely this kind of everyday discursive practice that further cements views about condoms, which reduce the efficacy of ABC strategies. Regardless of how many *Salama* condoms are actually breaking, the discursively constructed perceptions among conservation professionals that the vast majority of condoms one can purchase in the region are of inferior quality, that they are prone to giving people rashes, and that they are more likely to break all work to undermine the efficacy of the ABC prevention schema by providing rationalizations for why not using *Salama* condoms is a reasonable decision, despite the perceived dangers of HIV/AIDS.

There is one final narrative circulating about condoms, which powerfully attenuates the legitimacy of condom use as an HIV/AIDS prevention and that is the idea that the HIV virus is actually found inside of condoms, corroborating the findings of previous research in Tanzania (e.g. Rugalema 2004 and Setel 1999). As one young male ranger put it, "I hear a lot of rangers

say that condoms have HIV in them. They say that condoms have been injected with the virus so that when you put them on, you will get HIV." As I will discuss momentarily, there is a strikingly pervasive perception that HIV originated in America and serves as the newest neocolonial strategy, as Rodlach (2006) documented in Zimbabwe. Part of this strategy is to ingeniously put HIV inside the very instruments touted to be the most effective prevention device. Another high-level conservation manager put it this way, "the people that brought condoms here put HIV in them. They came with condoms as a way to transmit the virus …. All you need to do is put the condoms out in the sun rays and then after a while you will see the virus." Respondents spoke of the presence of *wadudu wadogo*, literally little bugs, inside the condoms that were responsible for the transmission of the virus, a type of conspiracy theory not limited to Tanzania (e.g. Rodlach 2006). HIV/AIDS trainers in the area vehemently counter this assertion stating that when condoms are put in direct sunlight, the spermicide inside the condom reacts with heat and sunlight and that this is what can be seen appearing to move around inside the condom. However, among this research's respondents, such counter-arguments appeared to hold less sway than the belief that the HIV virus has been deliberately put inside condoms.[104]

This discursively constructed idea of HIV being placed inside condoms, perpetuated through everyday discursive practices and supported by extractive and domineering historical

[104] There were, of course, also plenty of respondents who did not believe that HIV had been deliberately put inside condoms, such as one upper level conservation manager who, when queried, replied, "I do not believe in such a thing because, myself I am married, and if HIV was found in condoms even those of us who are married would be infected because we are also using the same condoms for the sake of family planning. So this idea is not true."

political economies of colonialism, presents an obvious challenge to the ABC prevention regime and casts further doubt on the proper role of condoms in arresting the epidemic. This idea of condoms being deliberately injected with HIV undergoes, what Moscovici describes as, a process of anchoring, in which new phenomena are anchored to existing social understandings, in this case that Western powers have long been out to exploit Tanzanian natural and human resources through duplicitous means. This ability to insert new technologies into existing ontological schema facilitates the reproduction of this discursively produced understanding. As Moscovici and Rodlach contend, histories of domination and colonialism position the formerly colonized to incorporate new threats, such as HIV, within existing narratives of domination through the process of anchoring. Once discursively anchored, these emergent narratives then undergo what Moscovici (2001) terms objectification, wherein the newly anchored understanding is reified and reproduced through its mobilization in relation to common sense. That is, clearly Western powers have long tried to exploit and dominate the landscapes, peoples, and resources of Tanzania. In light of such a history, it makes sense that HIV/AIDS can be seen as a new manifestation of these long standing dynamics. Once the connection between these two phenomena has been established, it is reproduced as a common sense interpretation that draws on existing understandings and is reproduced through everyday discourse and colloquial language. As a transition to the next section, which expands these condom-based conspiracy stories to a larger discursive construction of conspiracy theories of HIV/AIDS as a curiously American invention, I offer the words of a high-level conservation manager: “the majority of people do believe that this problem of HIV was brought here by *wazungu*. Now,

prevention measures, including condoms, are also coming from abroad, so to isolate the situation and exploit Tanzania, the West decided to put the virus inside condoms."

Alternate Discursive Constructions of HIV/AIDS Etiology That Challenge ABC

Related to this discursive construction of condoms as transmission agents for the HIV virus, rather than as instruments designed to prevent such transmission, is a more general narrative about HIV/AIDS, and the responses that aim to address it, as duplicitous products of the West that have been brought to the African continent. The three main variants of this product of discursivity were (a) the idea that HIV originated in a lab in America, that Western scientists then experimented on the virus in animals and , and that the experiments got out of control thus leading to the epidemic, (b) that HIV originated in a laboratory in America and has been used as a neocolonial tactic to control African bodies and resources, and (c) that organizational responses to HIV/AIDS, driven by the NGO establishment, are primarily a way to make money and, as a result, the strategies they promote should be viewed skeptically. All three of these narratives serve to further undermine the perceived legitimacy of ABC prevention approaches because if HIV is a Western invention and mainstream prevention strategies emanate from the same location as the virus, then a healthy dose of skepticism regarding both appears to be common sense.

The most common narrative about where HIV/AIDS comes from that I was told by conservation professionals during my stay in the northern safari circuit was one in which Western scientists, normally Americans, developed the virus in a lab and then injected it, as an experiment, into primates (and possibly humans, though there was debate about this). After

injecting the virus into primates, the scientists lost control of the experiment and that is how the virus entered the general human population. One conservation ranger put it this way,

> HIV came from America …. Americans were testing this virus on primates and after they realized the disease which comes from the virus, they decided to test it on human beings to see if this disease was treatable. The idea that this virus was created in a laboratory and injected into human beings is not what they are saying in the seminars. This is a disease that was originally injected into primates but then they came to try and test it on human beings …. But it got out of control.

Although there are some large leaps in logic in the above account, it was representative of the sentiments of many conservation professionals involved in this research. As a variety of respondents made clear, there was a common narrative of the etiology of HIV that posits that the virus, "is something that white people developed in a laboratory," that then "white people were coming here to test the virus inside of gorillas," or other primates, and which then, somehow, entered the human population either through an accident and the loss of control, "while they were doing this experiment, it got out of control and the disease began to spread from there," or through deliberate action, "HIV was developed are spread to reduce the population of Africans," as one middle-aged male ranger expressed. This discursive construction of the etiology of the epidemic is one Rodlach (2006) also encountered in Zambian settings. A variety of anchoring strategies are at play here that articulate the epidemic within existing common sense understandings of international relations. Firstly, the northern safari circuit is an area in which large numbers of EuroAmericans, read white, have come to conduct scientific research with animal populations and this is something that conservation professionals have witnessed. Thus, if scientific experiments were at the genesis of the epidemic, it is reasonable to assume it was at the hands of white scientists who have long shown interest in primate

populations in the area. Secondly, many diseases are perceived as emanating from the West, so why should HIV/AIDS not be incorporated into this existing narrative:

> *UKIMWI inatoka kwa wazungu* [HIV comes from white people/EuroAmericans]. You know, there are a lot of diseases. Right now, you hear about swine flu and you hear about bird flu. These diseases are always starting from white people. They start there because there is money there. Because we are poor, when these diseases come to Africa, for us, we have to die because we don't have any money.

The prevalence of discourses that position a variety of emergent diseases as Western products of capitalism integrates nicely with the understanding expressed above. This respondent also makes another crucial connection, which is the association of Westerners, particularly Americans with money and extractive colonial capitalism, an association that in some ways I believe my social position reinforced. As quoted above, there were many conservation actors, who viewed the HIV/AIDS epidemic as a deliberate neocolonial attempt to reassert power on the continent and further exert control of African bodies, landscapes, and populations. As one young male conservator expressed,

> HIV was developed in a laboratory by somebody as a way of making money. You know, you develop it, but then you also create a pill, so that you can give people the disease, but you also can supply the cure. HIV is a way of getting rich. But, you know, during the trials, things got out of hand and then it started multiplying and now these are the outputs or the end products of that creation.

The association of Westerners, in particular Americans, with histories of colonialism and greed and money factor heavily into conservation practitioners rationales concerning the etiology of the virus. These connections were often expressed, as Moscovici asserts, through the rubric of common sense. Curiously, though American was never a colonial power in Tanzania, a distinction reserved for Germany and Britain, I was told time and time again that HIV was developed in America. As one young male conservator told me, "for me, what I've heard and what other people are saying is that HIV was developed in America, for sure. I've never heard

anybody talking about England or Germany." There were more than a handful of conservation actors who understood HIV/AIDS as "a calculated move on the part of white people to reduce the population of black people," in the name of profits, as the same young male conservator went on to say. As another young male conservation professional passionately recounted, connecting the present HIV/AIDS epidemic to historical understandings regarding colonialism:

> What I heard is that there is a treatment for HIV but that the only people that have that are people in the United States of America. They don't want to expose it right now because they want the number of people in Africa to be reduced, for the population to be low. [Why?] Because if the number of people in Africa is few, people from the USA can come to Africa and conquer the African continent and then get resources from the African continent, which is what has happened for a long time.

Either white people are deliberately reducing the populations of African in the name of profit or in the relentless pursuit of profit, but not maliciously motivated, things got out of hand, as other conservation professionals asserted above. This anchoring of understandings of the HIV/AIDS epidemic within colonial histories was one fairly commonly asserted by the more astute of my respondents. As another thoughtful and measured high-level male conservation manager in the area put it:

> My feeling is that, let me put it another way and then I will come to the point, it is like who is producing arms and munitions? We don't have factories here in Tanzania. These arms are coming from western areas. Why then are these arms in Africa in such quantities? Because of fighting for economic benefits, like in Darfur or the Congo with minerals. Who is putting all these things [guns and munitions] here? Are we producing these materials? If we are talking about minerals, for instance, you don't see us selling those minerals on our own and strengthening our economies. We are only buying those things that are manufactured out of that, but these things are taken away from our countries. All of this comes from outside. Now coming to my hypothesis, I'm not saying it is based on any research, but when it comes to medicines, we don't produce any. We don't have any factories, so again they come from outside and that is my feeling …. What if all of these NGOs and spending all this money was really a way to fuel the economy of the West and that, in fact, all of these testing and awareness seminars were really a way of monitoring and evaluating how effective the experiment has been. When you think about it in terms of history, really it kind of makes some sense. You know, we are not dumb people. We can see what has come before and how it is related to what is happening now. What was colonialism has now taken the form of HIV seminars, trainings, and testing. People see

> NGOs with nice cars and lots of money - and the vast majority of them seem to revolve around HIV. In a country like this where people are so poor, what else are you going to think?

In this insightful extended quotation, this conservation actor first links the existence of other externally produced threats, guns and ammunition, to the appearance of the HIV virus and patterns of colonial wealth extraction, flatly stating that the connection makes sense when observed through the rubric of history. This functions as a clear example of Moscovician anchoring, connecting emergent phenomena to existing sociocultural and politico-economic understandings, not based in material coming from the reified universe of science, as he clearly states, but from the consensual universe of social representation and common sense, produced through everyday practice and quotidian discourse. He then makes a jump from grounding the etiology of the virus in common sense understandings to explaining the internationally driven NGO response to the epidemic in the same light. This distrust of EuroAmerican HIV/AIDS interventions is justified by situating it within the historical *longue duree* of colonialism and capitalist extraction. This high-level conservation actor was not the only respondent to position HIV/AIDS interventions, namely training seminars and testing regimes, within a narrative of HIV as an American invention designed as a form of neocolonialism. As another long-time conservation professional explained,

> These days a lot of people, particularly NGOs, are running to talk about HIV because they see that that is where a lot of money is and I think that that is a problem. Here in Tanzania most people are very poor and when you see an NGO, you think that there is a lot of money. What is one of the places where we see the most NGOs? HIV. So they are really are coming to do this education not to educate people but for money.

These discursive constructions of NGOs functioning primarily as an economic enterprise are also one grounded in everyday practice and observation in the northern safari circuit. The area around these parks is one where the vast majority of people are in socioeconomic positions

such that owning a vehicle is beyond the realm of possibility and possessing a vehicle is rightly seen as a sign of significant wealth. Just as many people mentioned the expensive vehicles that conservation professionals drive as a irrefutable sign of their relative affluence, it does not escape people's observation that the other segment of the population that uniformly seems to be driving very expensive vehicles are those in the NGO establishment. While this is not universally the case and a handful of NGO directors even lamented the opulence that most NGOs displayed via expensive Landcruisers and Range Rovers, by and large, the perceptions of the general public and those working in conservation was that NGOs must have access to lots of money in order to be driving such luxurious vehicles. In the context of this discussion, what is most important is to recognize that the legitimacy of HIV/AIDS NGOs and the ABC prevention regime they nearly universally promote is significantly called into question through the mobilization of everyday discourses and practices that position the movement within the historical lens of colonialism.

This undermining of ABC legitimacy is also fueled by narratives that contend that the very same people responsible for developing the HIV virus [*wazungu*] are now the same people that are driving the response to the problem they are perceived to have created, all in the name of money:

> For me, I think that when somebody from outside comes in and is telling you what to do and to use condoms, people are very wary and think that this man is just doing it to conduct his business, for selling his condoms. [So do you think the people that run HIV/AIDS awareness training sessions actually own condom businesses? [laughter]] I think maybe so. People are much less likely to believe you if they think you are there for reasons of business.

Many conservation professionals expressed such cynical views about the relationship between the emergence of HIV, those running NGOs and prevention trainings and seminars, and the

pursuit of profit. Collectively, these discursive constructions serve to largely strip the perceived legitimacy away from the very prevention efforts these NGOs are working to promote. During an informal evening conservation out at the bar, one influential middle-aged male conservator elaborated his belief that HIV/AIDS NGOs are in the northern safari circuit to monitor and evaluate their HIV/AIDS experiment and are there to make money through selling condoms—condoms that many believe actually transmit the virus. From such a subject position, and it was one shared by more than a handful of the participants of this research, there is no way to accept as legitimate the prevention strategies they espouse. These alternative discursive constructions, produced through everyday practice, observation, and communication, thus present a significant challenge to ABC efforts in the region.

Conclusion

Many, particularly HIV/AIDS professionals, wring their hands about why it is that people are able to undergo HIV/AIDS seminars and trainings that do not seem to result in much meaningful behavior change without situating this phenomenon within larger sociocultural and political-economic contexts and the ways in which local actors understand such relationships. The organizational responses of conservation organizations in the northern safari circuit are premised on the Health Belief Model and its attendant KABP, which posits that increased knowledge will motivate commensurate behavior change. Though this model has undergone several iterations and has been followed by the theory of reasoned action and the AIDS risk reduction model, all three share the basic underlying tenet that the locus of prevention techniques is the individual (Goldstein 2004). However, as has been amply demonstrated

above, health-based knowledge does not automatically lead to such behavior change, particularly in the face of alternative knowledges that directly challenge the foundations and strategies of the ABC framework.

Conservation professionals use their perceptions, observations, and understandings to position the drivers of the HIV/AIDS epidemic within macrostructural contexts. Yet, even as they articulate these understandings, they are repeatedly told that the ways to combat the epidemic, ABC, are all individual-based and essentially have nothing to do with the perceived drivers of the pandemic. Given this significant disjuncture, how likely would any of us be to put stock in solutions that do not seem to address the perceived roots of the problem at hand? As one conservation actor asserted above, "we are not dumb people," yet this disjuncture between what people are saying are the drivers of the epidemic and the proposed solutions powerfully marginalizes the embodied understandings with which conservation actors enter the seminars. As a result, the ABC prevention regime, as it is presently articulated, is doomed to, at best, marginal success because it does not redress any of the larger social forces that drive the epidemic in the northern safari circuit of Tanzania. Indeed, the shortcomings of the ABC prevention framework are most powerfully demonstrated by the lack of adherence even among those most elite conservation professionals, who, in Chapter 4, collectively asserted that it was individual level drivers which heightened viral vulnerability. During my time in the field, I had expected to find that those individuals who most forcefully mobilized individualistic ideologies in relation to the drivers of the epidemic would be the most likely to draw of the same ideological position when discussing their understandings and behaviors regarding ways to respond to the epidemic. This, however, was not the case. Thus, among conservation and

tourism professionals in northern Tanzania, there was not a single sub-set of professionals for whom I can say that the biogovernmental strategies of ABC appeared to be a successful behavioral intervention.

Furthermore, a second-level discursive challenge to the ABC regime exists, which even more fundamentally undermines the potential efficacy of such prevention schemes. The emergence of alternative discursive formations of condoms and the etiology of HIV are made possible precisely by the disjuncture between perceived drivers and proposed responses to the epidemic. If one believes that HIV/AIDS is an American invention designed to further neocolonial goals of controlling bodies, resources, and landscapes and that the same people responsible for beginning the epidemic are now those in charge of spearheading responses to the very epidemic they created, the likelihood of putting much stock in the proposed solutions is low, at best. Instead, alternative discourses emerge and represent a fundamental challenge to the possible effectiveness of such prevention strategies.

CHAPTER SEVEN

IF Not ABC, Then What? Thoughts on the Next Generation of HIV Prevention Interventions

The central methodological, epistemological, and even ontological claim of this dissertation is that we can deepen our understandings of the complexities of HIV and its convergence with the wildlife conservation establishment by talking not only to area HIV/AIDS experts and researchers (who clearly have important things to contribute), but also by listening to and privileging the voices of those men and women who spend their days and nights in the service of preserving Tanzania's wildlife and land-based natural heritage. As this thesis has made clear, this is relevant whether (a) addressing the disparate perceived epidemiological drivers of HIV/AIDS in conservation spaces, (b) examining the myriad materially and discursively grounded ways in which HIV is impacting the conservation establishment, or (c) exploring the HIV/AIDS responses of conservation organizations and the ways in which conservation professionals interpret, respond to, resist, and challenge such responses. Reflecting my own epistemological commitments and walking an epistemological tight rope, I find it problematic to suggest that some person far removed from daily life in northern Tanzania, as many of those who design and promote HIV/AIDS interventions are, would have greater insights into the dynamics that influence the lives, experiences, and understandings than men and women busy living it. Thus, it should come as no surprise that in this concluding chapter, I extend this argument to an examination of the ways in which the conservation establishment of northern Tanzania might more efficaciously neutralize the drivers and mitigate the impacts of the HIV/AIDS epidemic in the area's conservation establishment.

I was surprised to find significant overlap between the sociological explanations for the pathways through which large-scale social forces are shaping both the epidemic and individual thoughts and the understandings about HIV communicated by conservation professionals. Yet, in spite of these striking explanatory similarities, the programs and interventions designed to mitigate the epidemic largely do not reflect the best scientific understandings of today *or* local knowledge/awareness of the epidemic. Whether it is attributable to the long time frames it requires to take a proposed intervention from a conceptual stage to implementation, a lack of access to the most recent empirical evidence, or something else, most programs designed to address HIV/AIDS in northern Tanzania, and within the conservation establishment there, rely on outdated theoretical assumptions and empirical evidence, which a growing chorus of academics and lay people alike are forcefully contending simply don't work, as I detail below.

Over the course of conducting this research, I came to see that in several important HIV-related topics, there is an incongruity between how cutting edge social science investigations frame matters of importance and how HIV/AIDS programs are designed and implemented on the ground. At first, I anticipated that this discrepancy between empirical evidence and the theoretical foundations of HIV interventions would be replicated by actors on the ground: that is, regardless of what scientists are saying and writing, we would find that the ideas that inform HIV/AIDS interventions in the area would largely also be espoused by the people whom they are intended to reach. After all, to me it simply doesn't make sense to design prevention programs to address HIV/AIDS that are blatantly at odds with the understandings of the majority of those who the programs are designed to influence. In this dissertation, I have

interwoven original empirical evidence and the most current social scientific understandings to illuminate these discrepancies.

My intention in this dissertation is not position myself as the latest EuroAmerican researcher to come to the imagined diseased, dark continent and tell people what they are doing wrong and provide the magic bullet to once and for all vanquish the epidemic. Rather the goal was to produce a detailed, nuanced account of the complexities and frictions at the heart of the convergence of the HIV/AIDS epidemic and wildlife conservation. In so doing, I worked to illuminate the transnationally influenced, but profoundly grounded, "sociocultural, political and economic context in which the HIV/AIDS epidemic seems to flourish" (Van Donk 2006:173). Following Van Donk, if prevention interventions are going to be successful, they must account for these contexts and indeed this is exactly what current social scientists, including myself, are arguing needs to more effectively happen. Responding to the multi-faceted and complex phenomenon of HIV/AIDS defies easy answers and simple solutions. The only easy answer is the facility of pointing out that current efforts are not working and to suggest that it is time to expand our frame and to privilege the complexities of the epidemic in our collective response. I truly believe that most of those who dedicate their time, energy, and resources to attempting to develop and implement responses to the HIV/AIDS epidemic in northern Tanzania are thoughtful, well-meaning people working to do their best to, in some small way, make life better in a challenging environment. As such, my hope is that this dissertation can serve as a vehicle for promoting deeper understandings of the complexities of the HIV/AIDS epidemic and that it may empower practitioners to more fully understand why current interventions are not

particularly fruitful and provide a signpost to guide the endogenous development of more efficacious interventions.

This final chapter begins by briefly returning to each of the previous chapters. I iterate the primary findings of each chapter as a vehicle to address how such findings contribute new insights to our understandings of the convergence of wildlife conservation and the HIV/AIDS epidemic, mediated by sociocultural understandings, political economy, and social forces. The Introductory chapter uses an interview with a high-level conservation actor to introduce a series of frictions, which I position at the heart of the dissertation and chapters to come. The bulk of the first chapter is devoted to situating this innovative work within existing academic and grey literatures, primarily those related to historical influences on the epidemic, risk and HIV in Tanzania, structural drivers of HIV transmission, the impacts of the epidemic, both generally and specifically within conservation spaces, and organizational responses to HIV/AIDS in the area. After doing so, I then introduce the research site(s), justify why this site is an appropriate location to examine the complex interactions between conservation and HIV, and examine the HIV/AIDS epidemic in northern Tanzania, pointing out that the uniformly low reported regional rates mask important geographic variability, which maps on to wildlife conservation in the area in important ways.

The second chapter details how using feminist and STS methodological frames during the course of fieldwork and writing this thesis helped to privilege experience-based understandings and actions, including those of myself and my research assistant. I draw on Harding's tripartite distinction between methods, methodology, and epistemology to tease apart the intricacies of what I actually did in the field, what I did with the materials I collected,

and upon what assumptions this data collection and analysis process was predicated. In the chapter, I situate myself within the epistemological trajectories of both feminist and science and technology studies theory and examine how my own ontological commitments shaped the course of this research and writing.

In Chapter Three, "Historical Traces in the Present: Identity, Health Care, Conservation, Externality, and HIV/AIDS," I assert that to fully understand the complexities of the present HIV/AIDS epidemic, we must account for the ways in which three primary historical trajectories situate the convergence of HIV/AIDS and wildlife conservation: constructions of identity, the development of and access to health care, and the rise of wildlife conservation. The central claim of the chapter is that all three phenomena, from the beginning of the colonial period through the present, bear the strong imprint of external influence and each, in its own ways, reproduces a variant of dynamics of colonialism. Furthermore, all three dynamics have shaped the intersection of social contexts related to the epidemic's profile within northern Tanzanian conservation spaces. The implication of this profound external influence has been individually examined in relation to identity formation, wildlife conservation, and HIV/AIDS in northern Tanzania, but never in relation to the ways in which these phenomena intersect. Through such an examination, I contribute a novel reading of the newest articulations of longstanding transnational involvement in matters related to health and environmental governance. Although NGOs have long been central to matters of wildlife conservation in the area, they are breaking new ground by incorporating HIV/AIDS into their activities and this thesis presents the first substantive examination of such new manifestations of NGO power and influence in Tanzanian conservation spaces.

Thus, this chapter follows Setel (1999) in asserting that an accurate understanding of the present day dynamics of the HIV/AIDS epidemic in northern Tanzania requires not only that we examine present day influences, but also the numerous historical trajectories within which the present is situated. If we want to design and implement prevention programs that have a chance of success, such programs need to be contextualized vis-à-vis the ways in which people relationally understand themselves and their place in the world. Those understandings have a history and not paying attention to them leads to ill-conceived, individual-centered interventions that marginalize the very subjectivities through which people engage such intervention. No wonder they don't work particularly well.

In Chapter Four, "Feminist Standpoint, Subjectivity, and Perceptions of HIV/AIDS Drivers among Conservation Professionals in Northern Tanzania," I examine the factors that conservation and tourism professionals position at the center of ongoing spread of the HIV virus. During the course of this research, I was struck by an important dichotomy in the ways such actors positioned the relevant epidemiological drivers: those conservation professionals at the very top of the conservation hierarchy consistently indicated that individual-level behaviors and irresponsibilities were at the root of ongoing transmission, while in contrast, most mid- and lower-level conservation and tourism professionals suggested that the intersection of several structural forces was at the heart of the continued transmission of HIV. In order to explain this seeming contradiction, I utilize insights from feminist standpoint theory and Garland's (2006) elaboration of the emergence of wildlife conservation subjectivities at Mweka to show how those at the very top of the conservation hierarchy have been socialized to engage their personal worlds as ones largely free from structural constraint and that they have the financial

resources and professional status to do just that. As a result, they move through a world in which they are, by and large, able to make their own choices and, as a result, they expect that others also inhabit such a world. However, as many mid- and lower-level conservation professionals were quick to point out, their lives are very much constrained by a number of extra-personal forces and, as such, it should come as no surprise that they therefore interpret the spread of HIV in relation to these same social forces. The novel refocusing of standpoint theory within this case study, at least on a very general level, presents the possibility of comparison with other socially hierarchical populations with elite and relatively constrained members, such as the mining sector or the military.

These insights become particularly important because those at the top of the conservation hierarchy, who see individual-level dynamics at the center of viral transmission, are the same people who have the greatest sway within these organizations regarding what kinds of responses and prevention strategies their organizations are likely to pursue. However, we must remember that their possible courses of action are, in many ways, largely predetermined by the priorities of transnational funding agencies. One reason why the ABC prevention framework is such a commonly utilized intervention is that it is simply perceived as an achievable goal, from which deliverables and implementation successes can be reported to funders. As a result, protected areas end up with prevention programs deeply infused with the same notions of individuality that top conservation actors believe are responsible for the epidemic, which has important consequences for the potential efficacy of such interventions.

Little attention has been paid to the impacts of the economic development that accompanies conservation, yet this work points out that such development results in an

environment that counter-intuitively facilitates the spread of the virus when contextualized within other structural forces. In search of livelihoods, people now migrate to settled areas around the parks because that is where the money is. But it is not simply the rural poverty in the areas that furthers the spread of the virus. Rather, it is the relational income inequality that results from the infusion of massive amounts of capital into an otherwise relatively resource-poor setting. This insight helps to shift the focus from absolute poverty to relational income inequality as the central economic dynamic of importance when examining among whom and why the virus may be spreading. This, unfortunately, does not bode well for conservation and tourism professionals in the area, since they have the disposable income to take advantage of others' desperation.

As the leading economic growth engine in the area, conservation and tourism have brought tangible positive infrastructure benefits to the area, but one is forced to ask at what cost? When several thoughtful participants confidentially contended that the most significant negative consequence of conservation and tourism development has been the increase of HIV seroprevalence in the area, I was repeatedly left wondering if it was worth it.[105] I pointedly asked several interviewees exactly this and was repeatedly met with furrowed brows, clasped hands, pleading eyes and telling silences. The inescapable contradiction of the economic

[105] This points to an important conclusion of this research, which is that economic development influences epidemiological profiles. In the course of this dissertation, I have drawn parallels to the political economy of fishing around Lake Victoria and the economic engine of the armed forces in several African countries. Though not examined in this thesis, informal conversations with academic researchers suggest that this connection is also apparent in the Tanzanite mining center of Mererani. The point here is precisely that there is, in this way, nothing all that special about conservation-related development, but rather that wherever we see economic development in East African resource-poor settings with high levels of inequality, we tend to see a concomitant worsening of the HIV/AIDS epidemic.

development of conservation tourism in northern Tanzania is that despite the massive sums tourists pay to come and revel in the natural landscapes and flora and fauna found therein, the overwhelming majority of the economic gains, much like the tourists in the $75,000 dollar luxury safari vehicles who drive such growth, make little difference in the well-being of those who call the northern safari circuit home. As J. Ferguson (2006) points out, the development of conservation does not flow through Africa, a la Appadurai. Rather, it selectively jumps from enclave to enclave, enriching a few and leaving continued immiseration and HIV as its promise of a better future for many of those attracted to conservations potential riches.

My work also reinforces the centrality of patriarchal social environments and gendered inequalities to examinations of HIV transmission. But unlike a recent number of studies of these dynamics in Tanzania, this research suggests that, at least in rural northern Tanzania, we are not witnessing a significant shift in how such forces are situating viral vulnerability or are impacting gendered relations. Indeed, most male conservation professionals are resisting shifts in gendered interactions and use their economic and male privilege to reinforce such unequal dynamics, even as many women are pushing for exactly those changes. Additionally, while migration and mobility have long been considered important vis-à-vis who is susceptible to infection and where, so too are geographies specific to conservation: those of isolation and relaxation. Because the conservation establishment involves extended periods of isolation, coupled with large salaries, and proximity to geographies of relaxation that are saturated with potential sexual partners, where men go to unwind on those brief occasions when they are not deep in the bush, the geography of conservation is central to understanding the dynamics that

facilitate the spread of the virus: “place affects health variation because it both constitutes and contains social relations and physical resources” (Ezekiel et al. 2010:48).

Chapter Five: “The Materiality of Discourse: Impacts of HIV/AIDS in Northern Tanzania’s National Parks,” provides a novel perspective through which to examine the ways in which the HIV/AIDS epidemic is impacting the northern Tanzanian conservation establishment. This work draws on two parallel bodies of literature, one developed from within the conservation establishment and the other produced by a handful of academics, as discussed at length in the Introduction. The body of work produced from within the conservation sector, crisis-driven and solution oriented, centers a trope of loss as the central frame through which the various impacts to conservation are situated. The most academic in-depth examination of these intersections utilizes an economistic conceptualization of conservation that positions conservation as an aggregate of several kinds of resources. In contrast to both, I frame the conservation establishment as a constellation of various organizations, actors, processes, relations, and objects of protection. By conceptualizing conservation in this way, I illuminate a number of ways in which the conservation establishment is being impacted that have, until now, remained unexamined. In order to make sense out of how these newly identified impacts function, I situate the analysis within theoretical frames of risk. Doing so enables me to show how, in addition to observable, measureable, quantifiable impacts, there is a second qualitatively different category of impact: those based in discursively constructed perceptions of risk. Up to this point, almost none of these impacts have been addressed by any previous work. This revelation of far more numerous and pervasive impacts than previously accounted for is important. Conservation organizations are expending significant time, energy, and money

to try and mitigate these diverse impacts and if they are unaware of or not responding to the full spectrum of impacts, then their efforts are likely to be met with only partial success.

The sixth chapter, "There Are Questions Science Cannot Answer: Resistance to ABC-Based HIV Prevention Interventions," examines the primary HIV prevention strategy being employed by conservation organizations in the area: the individual-centric ABC approach. TANAPA, the governing body for both Lake Manyara and Tarangire national parks, mobilizes the globally ubiquitous tripartite strategy in an attempt to intervene in employee's sexual behaviors. I argue that these strategies function as an attempt to operationalize a form of Foucauldian biopolitical governmentality, suggesting that if only people are "better informed," they will internalize positive health strategies and make self-interested choices to ensure their physical well-being. However, this form of governmentality is not particularly successful because (a) it presumes an audience comprised of individualistic, self-maximizing subjects in a social environment where most people understand themselves and their place in the world relationally and (b) the individual-oriented interventions of abstinence, monogamy, and condom use do not meaningfully respond to the epidemic's structural drivers. Both of these frictions significantly detract from the potential impact of these prevention programs. In the chapter, I quote a mid-level conservation professional as defiantly asserting that "our bodies are our own." However, in the preceding pages, I have convincingly argued that in some profound metaphorical, discursive, and even material ways, our bodies are, in fact, not entirely our own. Rather our agency is mediated and constrained by the current manifestations of historical trajectories, by the inequalities present in the social environments actors navigate, by

macrostructural forces, by transnational moralities and funding priorities, by what is perceived as realistic and achievable, and by discursively constructed regimes of truth in the case of ABC.

As a result of these significant frictions, many conservation professionals, who are supposed to go to these seminars and then internalize and reproduce these individual-oriented prevention strategies, actually question the validity of what they are being taught, challenge the efficacy of all three prevention techniques, and mobilize alternative discourses that undermine the very legitimacy of all three prevention strategies, both individually and collectively. To understand why these attempts at biopolitical governmentality fail to produce the intended results, I utilize insights from de Certeau and Moscovici's understandings of the practice and power of everyday discourse, which theorize that people are active, not passive receptors of information, incorporating new ideas into existing understandings and schema rather than being some kind of *tabula rasa*, upon which new understandings can be placed. These ABC-based prevention trainings occur in institutionally sanctioned discursive environments, which conservation professionals routinely argued were less important for knowledge production than quotidian interactions among friends and colleagues. Thus, this suggests that the power of everyday experience and interaction to shape sexual understandings and behaviors is far more profound than the power of a classroom or workplace-based seminar, which has important implications for understanding processes and loci of persuasive knowledge production. Likewise, it provides a concrete examination of how people push back against health behavior programs that disregard pre-existing, culturally situated understandings.

Additionally, there are significant policy implications vis-à-vis a recognition of how and why current ABC-based programs are failing to result in widespread behavioral change. By

demonstrating exactly *why* these programs are not working in the area, the stage is set to make substantive changes to HIV/AIDS prevention programs that potentially could result in more effective prevention campaigns. In contradistinction to both De Souza et al. (2008) and DeMotts (2008), who argue that existing conservation organizational infrastructure can be used to mobilize innovative responses to the HIV/AIDS epidemic, in northern Tanzania, the conservation establishment is prioritizing the same old, tired prevention strategies that have been shown to have, at best, mixed results across the globe. On both theoretical and practical levels, this important finding should prompt a reprioritization of the emphases placed on both the substance and the mechanics of HIV/AIDS prevention programs.

There is another important implication of this work. As a number of other researchers have indicated, solely ABC-based prevention platforms simply aren't that effective (see C. Campbell 2003 for a particularly insightful South African case study). Even in Uganda, widely considered the most successful example of ABC-based intervention in the world, several scholars have persuasively argued that it was far more concerted multi-sectoral broad-based partnership efforts, grass roots community mobilization, and committed government interventions in conjunction with education programs, not ABC alone, that was responsible for the significant reduction in the nation's HIV prevalence figures (Cohen 2003, Garvey 2003, Murphy et al. 2006, Roehr 2005, Singh et al. 2003, Swidler 2009). This small consensus demonstrates the representative nature of my sample and findings because, although it is a select sample, similar findings have been reported elsewhere. ABC-based prevention strategies attempt to counter perceived information deficits, which would suggest that among highly educated people who have no such deficit, we should see higher levels of behavioral

adherence. However, this is not the case. Because the vast majority of my respondents were well aware of the existence of HIV/AIDS, were well familiarized with the ABC approach, and more than half had attended ABC prevention trainings, it would be reasonable to expect to find that they were paying greater attention to the information-based ABC prevention strategies. But, it turns out they are not. As I was told by several HIV/AIDS NGO workers and other Tanzanian scholars while in the field, they respond in much the same way as other, less educated populations in northern Tanzania do to such interventions. This reliance on the supposed simplicity of ABC prevention schema is also problematic because it can actually further reproduce a blame-the-victim discourse for those who, due to structural constraints, are unable to mobilize these seemingly simply prevention strategies (Van Donk 2006). ABC is failing to effect significant behavior change among one of the most educated professional groups in northern Tanzania, and it appears it may actually be counter-productive among those segments of the populations with whom conservation and tourism professionals interact, namely economically disempowered women trying to negotiate patriarchal social geographies. If ABC does not work well among relatively educated conservation and tourism professionals or among those with whom such relatively privileged actors interact, where exactly do we think it will be effective?

Furthermore, Collins et al. (2008) point to two internal contradictions inherent in the trajectory of the ABC response, both of which are applicable in this context. First, in the name of presenting the simplest prevention acronym possible, two different kinds of prevention strategies are conflated: 'A' and 'B' represent behaviors while 'C' offers a market commodity as the solution to viral transmission. As addressed in previous chapters, both these behavioral and

market-based interventions are problematic. Furthermore, even as TANAPA attempts to mainstream voluntary counseling and testing (VCT) into their organizational response, primary attention is still focused on ABC, which does not leave much room for VCT in its palette of responses. Additionally, according to Collins et al., ABC also marginalizes the importance of addressing mother to child transmission (MTCT) as a prevention strategy thus fundamentally undermining the legitimacy of the committed and coordinated multi-sectoral response social scientific HIV/AIDS experts are now arguing must be the centerpiece of the next generation of HIV/AIDS interventions.

If Not ABC, Then What?

Among those conservation professionals in this study who did self-report changes in personal sexual behaviors, they almost ubiquitously asserted that such behavioral shifts were not motivated primarily by ABC-based instructions, but rather were the result of emotionally and psychologically devastating personal experiences with the HIV/AIDS-related illnesses and deaths of close friends and family, increasing levels of fear and diminishing levels of trust regarding potential sexual partners, and increasing levels of religiosity. As one male driver-guide, who had been working in the tourism industry for several years, told me regarding the impacts of personal experience:

> If we are talking about behavior change, we're looking at two things. The first is that they [conservation professionals and driver-guides] are fully aware about HIV/AIDS, which all of them are, but the problem is for them to make a decision. And right now I think quite a number of them have decided to make this decision [changing sexual practice] from having seen people die. You know, for many people here education does not result in behavior change as much as the NGOs and government would like to think it does. Witnessing the pain and suffering of death first hand is far more effective than education.

According to this thoughtful informant, behavior change is not fundamentally rooted in effective ABC prevention education, but in more powerful corporeal experiences.

A mid-level middle-aged male park ranger suggested that it was not necessarily the education, but his personal fears about the epidemic that have motivated him to act in ways in accordance with the ABC regime, "For myself, I very much fear HIV/AIDS. That is why, after I went to go get tested and I found that I was negative, I changed all of my behavior, totally." Again, this participant does self-report significant behavioral modifications, but does not attribute his changes in behavior to the efficacy of ABC trainings.

The final justification for behavior change that I was repeatedly told was a religious one. It is worth bearing in mind that, as prosthelytized in Tanzania, both Catholicism and Islam dissuade and even forbid condom use, which means that, for many, one of the greatest persuasive forces in their lives is in direct contradiction with the ABC prevention framework, thus greatly reducing its potential as a catalyst for behavior change.[106] Among those who are strong believers, the source of behavior change comes not from ABC-based trainings but from the power of their beliefs. As one young male tourism driver-guide, indicated:

> I think that the most important thing that can influence the behavior of Africans is religion because I know my fellow Africans. I can say that I have seen more people change as they start to believe strongly in religion than from any other factor. And I'm not talking about just any one religion, religion is a very good thing to use to shape people. For instance, I know a lot of drivers who had very bad behavior for a long period of time but through religion have come to be good people who care for their wives and take care of their children. At the moment, I see religion is the only way for Africans to change. So from my point of view, if you take someone that already knows about HIV and you just train them again it's not going to change anything. To some degree it might be able to contribute, but the big changes will be made when people start to believe in their faith.

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[106] For a cogent examination of the ways faith-based medical practitioners navigate this seeming contradiction by emphasizing abstinence and monogamy, deprioritizing condom use, see Booker (2009).

So, while it is important and appropriate to acknowledge that there are people who are shifting their understandings and behaviors in light of HIV, a closer inspections reveals that this behavior change can only be tenuously, at best, tied to ABC prevention interventions and that the loci of such changes are better situated within cultural and corporeal understandings and experiences. This matters because, as this research shows, the prevention programs being implemented in northern Tanzanian conservation spaces are having a limited impact, one that were it situated more appropriately within existing belief and knowledge frameworks, might be a more effective catalyst for change.

Why is it then that the global and Tanzanian HIV/AIDS communities continue to rely heavily on the ABC prevention framework, when its efficacy has been questioned time and again by academic researchers and NGO workers on the ground? The reality is that alternative structural prevention efforts require a commitment to addressing the structural dynamics that constrain individual behavior choice, a task far more daunting than simply telling people they need to be responsible for changing their own behaviors, as if each individual has the capacity to make choices in an environment free from external pressures. As Phillips and Pirkle (2011:579) assert:

> The challenge to prevention interventions is not to treat behaviour as decontextualised and de-historicised phenomena. Interventions need to be cognisant of population-wide causes, which may make particular behaviors more likely to occur in particular contexts … neglecting the context in which an intervention occurs can inadvertently reproduce structures of vulnerability and unintentionally impede the effectiveness of interventions.

This dissertation has demonstrated (a) exactly how current ABC-based interventions decontextualize and dehistoricize the epidemic, (b) the manner in which structural forces related to development, income inequality, patriarchy, and geographies of mobility, isolation,

and relaxation facilitate particular kinds of epidemiologically risky behavior by failing to address the context of both the epidemic and relevant interventions, and (c) how this inattention to history, context, and structural constraints actually undermines the viability of current prevention interventions.

It is important to be fair and note that TANAPA, in particular, has attempted, at least on paper, to augment ABC approaches with a number of other programs, including VCT, ART, and locating spouses near each other when both are in the employ of the agency. In fact, TANAPA was actually out ahead of the national government in their development of a HIV/AIDS workplace policy and the mainstreaming of ART for seropositive employees. Furthermore, AWF recently reported that, in conjunction with TANAPA, they funded and constructed staff housing for families of Tarangire National Park staff and in doing so, present one of the only visible structural interventions to date, though hopefully not the last. Other than this initiative, as noted in earlier chapters, TANAPA's own employees overwhelmingly indicated that these laudable goals, as spelled out on paper, are not being effectively implemented on the ground.

In response to a question about how TANAPA decided what strategies the organization would use to attempt to mitigate the impacts of HIV within their protected areas, a senior HIV/AIDS official with the organization told me that in the early 2000s they had looked at what the reigning best practices were and sought out expert advice. Indeed, TANAPA's HIV/AIDS response is in line with much of that championed by Oglethorpe and Gelman (2007), perhaps the most influential duo when it comes to HIV/AIDS inside conservation spaces and organizations. Unfortunately for TANAPA, "over the past decade, HIV/AIDS prevention research has continued to shift from the individual, couple, and small group-level toward an analysis of

the large-scale structural determinants of disease … [and] there is a recognized need for innovative structural approaches within the next generation of HIV/AIDS prevention interventions," (Dworkin and Blankenship 2009:462). As examined in the introduction, individual bodies and behaviors featured prominently in early understandings of the epidemic and, as such, it is little surprise that HIV/AIDS responses in Tanzania also focus on the individual as the locus for intervention. However, following Dworkin and Blankenship, the focus has shifted significantly over the past decade to account for the extra-personal forces within which understandings, actions, and behaviors are situated and constrained. Unfortunately, as Collins et al. (2008) point out, as our understandings of the complexity of epidemiological drivers have increased, prevention efforts have lagged far behind and most do not currently reflect the current state of academic consensus regarding the HIV/AIDS epidemic.

Although they receive very little press and even less implementation, alternative conceptualizations to the ABC regime do exist (e.g. Blankenship et al. 2006, Collins et al. 2008, Dworkin and Ehrhardt 2007, Green 2003, Phillips and Pirkle 2011, Rotheram-Borus et al. 2009). Collectively, the authors do not argue that individual-centered behavioral interventions should be phased out, but rather that unless they are a part of a committed multi-sectoral response that includes effective structural and biomedical interventions, such individual-oriented programs are likely to have little effect, which is exactly what this research project and other recent scholarship have shown us. Blankenship and her colleagues (2006) make a compelling case for the viability of structural interventions, pointing to the viral transmission reductions that accompanied 100% mandatory condom use enforcement in Thai and Cambodian brothels. Building on this argument, Rotheram-Borus et al. (2009) argue that there is no single magic

bullet that is going to remedy issues associated with the spread of HIV, but that there is a pressing need to integrate behavioral, biomedical, and structural interventions, rather than focusing primarily on ABC-based prevention strategies. Van Donk (2006) argues instead for a reconceptualization of ABC (A Broader Conceptualization), which would situate the epidemic within a more complex assemblage of sociocultural, political, and economic contexts, all of which must be meaningfully addressed if we are to collectively arrest the spread of the virus. Dworkin and Ehrhardt (2007) build on these understandings, by attempting to shift the discussion from ABC to the GEM model, which works to explicitly address (G)ender relations, (E)conomics, and (M)igration.

Not coincidentally, such a focus would directly address three of the four structural drivers that most conservation professionals argued where at the root of the epidemic. Since most conservation actors focused on these structural dynamics as the drivers of the epidemic, the potential solutions that follow from their assertions about how to meaningfully address the epidemic focus not on ABC, but on GEM. If the first structural constrain that needs to be addressed is gender inequalities, conservation organizations are doing a woefully poor job of responding: as one mid-level female ranger forcefully asserted, “there is no women’s empowerment here.” Confronting the gendered inequalities that permeate the conservation and tourism industries, and the social milieu more generally, is one potential way forward. Another mid-level female conservation professional specifically addressed the second of Dworkin and Ehrhardt’s structural interventions when she asserted, “we need to start by addressing poverty and education because when a girl or woman becomes capable of controlling her life, she can say no.” Under the present situation, many girls and women have

greatly reduced abilities to assert meaningful control over their bodies, to negotiate condom use, or to enforce fidelity, thus delegitimizing the very foundations of ABC. As Collins et al. (2008:S5) assert, "If HIV prevention comprises only the ABCs, the social reality of millions of women means they will simply not be able to choose 'A' or 'C', and 'B' will bring little protection – and perhaps even greater risk." The validity of this assertion was supported by another mid-level female conservation actor, who suggested, "we need to start by dealing with poverty first because women have nothing," again asserting the need to address gender relations and economic inequalities as the first step in more meaningfully addressing the area's HIV/AIDS epidemic. Dworkin and Blankenship (2009) suggest that women-centered microfinance programs may present a compelling structural intervention that has the potential to address the financial marginalization of women in ways that may empower women with greater control over their bodies, thereby reducing viral vulnerability. In conversation with migration-related concerns, the third structural dynamic identified in the GEM framework, a third female mid-level ranger asserted, "This is somewhere that the government needs to intervene to improve the lives of people, especially the youth. There are so many unemployed youth who come here looking for any way to make a living." This dissertation has cogently argued, following the woman above, that the conservation and tourism specific social geographies of mobility, isolation, and relaxation are at the center of the structural dynamics that inform the continued transmission of HIV and that there is a need to redesign interventions to address these structural dynamics.

In addition to refocused prevention frameworks which highlight the structural dimensions of viral vulnerability, there is also room for behaviorally-focused interventions

which draw on the relational understandings of identity embodied by most Tanzanians, addressed in Chapter 3, rather than a continued focus on individual-centered behavior modification interventions, which by now we have seen are remarkably ineffective. Indeed, in an area adjacent to the northern safari circuit, there is at least one NGO engaged in behavior-change prevention and education programs doing exactly that. The Longido Integrated Community Program, LOOCIP, has been working for the past several years to mobilize community level, community driven, community focused HIV/AIDS education programs. Utilizing the United Nations Development Programme's Community Conversations framework, LOOCIP has been successful in creating meaningful community-wide HIV/AIDS-related dialogue by placing the communities in question at the heart of the development of intervention strategies, priorities, and outcomes in practice and not just in rhetoric. In nearly a year of asking people, both who work for NGOs engaging in HIV work and those who are the recipients of such efforts, if they felt that such interventions were successful and repeatedly hearing that they were not, LOOCIP was the exception. HIV/AIDS trainers working for LOOCIP related a level of success in promoting open dialogue nearly unmatched in the area. Despite a level of success few others in the region are achieving, LOOCIP has been beset with a host of difficulties and remains marginalized in the area in relation to funding streams, institutional capacity, and recognition. While an ABC-based training session may take a single day and the NGO which runs it can then return to donors with deliverables, such as the number of people 'trained' or the number of condoms distributed, the Community Conversations framework employed by LOOCIP is far more time-consuming, involved, and does not result in the same level of easily digestible outputs and deliverables. Even as it appears far more effective at increasing HIV/AIDS

awareness and shaping community members' behaviors, by placing communities at the heart of and in control of such interventions, it is not the kind of NGO intervention which receives significant on-going funding or has been widely replicated. This speaks less to the value or efficacy of the strategies employed by LOOCIP and much more strongly to the problematic multi-scalar institutional dynamics of the global HIV/AIDS prevention funding apparatus. There is good work being done by capable people that is shifting how people think about HIV/AIDS and what they do as a result, but the transnational HIV/AIDS sector is paying little attention because such methods do not produce the immediate outputs such funders desire, even if they are more effective interventions. It is time we start paying more attention to and attempting to replicate the few successes in place, such as LOOCIP.

Thus, the policy implications of this research are significant insofar as the vast majority of HIV/AIDS prevention funds are being channeled into individual-based ABC programs that are not particularly successful. It has now been several years since the development of the GEM framework, which foregrounds several of these important contextual constraints, yet it has been by and large ignored in policy circles much to the detriment of prevention efforts in northern Tanzania. Currently the HIV/AIDS establishment in the area is not taking significant steps to begin to address structural dynamics of the epidemic, whether due to a lack of will power, funding, or the lack of a clear path through which to accomplish structural change. While there is no magic formula for how to make behavior change-based prevention models more effective, listening to and taking seriously those whose behaviors are the target of such interventions would be an excellent start. Addressing such macro-structural forces as political economy, relative income inequality, gendered inequalities, and the impacts of migration and

isolation are clearly daunting propositions and ones for which I have no readymade solution. Additionally, it must be noted that the transnational politics of HIV/AIDS funding privilege ABC-based interventions and that Tanzania is not in a particularly strong position to go against the predominant global trend of ABC-focused interventions. But to not dare to be imaginative enough to envision ways to do so or muster the political will to implement such interventions, once imagined, doom's large swaths of the world's population to continued immiseration and heightened viral vulnerability.

Because of the systemic nature of such epidemiological drivers, there is a concomitant need for equally systemic solutions, ones that work across the multi-scalar frames of transnational HIV/AIDS governance. Just as the roots of the HIV/AIDS problem in Tanzania traverse a number of geographic scales, so must any effective concerted response effort.

Collins et al. (2008) support the young woman quoted above who argued for greater governmental accountability, but they correctly qualify such a proposed intervention by noting that a shift in the kind of accountability is required. Presently, the several Tanzanian governmental agencies working (in some ways across each other) to respond to the HIV/AIDS epidemic are accountable primarily to the transnational organizations that fund them, primarily USAID, the World Bank, the WHO, and the Global Fund. The problem is that those whom the government agencies need to be accountable to, the Tanzanian people, get lost in the shuffle. Furthermore, as Collins and his colleagues assert, transnational funding agencies, notably PEPFAR and USAID, have far too much sway over how programs are implemented on the ground through abstinence funding requirements and global gag rules regarding abortion-related health services. While the Tanzanian government is stuck playing politics and catering

to morally infused notions of proper behavior, which largely emanate from the West, people are continuing to be infected and dying every day. The hypocrisy of this position is illuminated by the realization that for most insured seropositive individuals in the developed world, HIV is now approached as a manageable chronic condition, while in 2009, 86,000 Tanzanians died from HIV/AIDS-related illnesses (UNAIDS 2010).

The inefficacy of the current situation, which I have demonstrated within northern Tanzanian conservation space, needs to be addressed at all potential levels of intervention. Fortunately, academics are now producing an ever-growing body of evidence pointing in this direction and are now talking about the need for structural solutions to address the structural forces that shape lived experience and constrain behavior and choice. The question we now need to ask is how far behind these emergent academic and lay understandings of epidemiological complexity will organizational responses lag? If the recent past is any indication, we are, unfortunately, likely to see a several year delay, optimistically, before these most current understandings are fully incorporated into the global response to HIV/AIDS. But it does not need to be this way. During the course of this research, just asking conservation practitioners what should be done to address the epidemic resulted in the articulation of possible structural interventions that seek to remedy the perceived structural drivers of the epidemic. Perhaps, then, more effective answers might be found by listening to those whose lives are impacted by the epidemic. The global HIV/AIDS community foregrounds ABC because it is easy and doable, even if it is not particularly effective. Because of the facility of ABC, we are still telling people that the real answer is to change their personal behavior, which is certainly not at the root of the majority of the perceived drivers of the epidemic examined in this

dissertation. Rather than listening to people whose embodied experiences have made them experts in the region, we continue to wring our hands and wonder why well-meaning individual-focused prevention strategies seem to be missing the mark. This dissertation aims to make visible those embodied, experience-based potential prevention alternatives, even as I recognize that such alternatives would be far more difficult to implement. Alternative possibilities are there, we just have to take the time to take people seriously, push ourselves to imagine a more just, healthier world, and then muster the courage to follow through with solutions.

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