

Improvising Knowledge

**A case study of practices in and around World Spine Care's evidence-based
clinics in Shoshong and Mahalapye, Botswana**

Mylène Mongeon

A thesis submitted to the
Faculty of Graduate and Postdoctoral Studies
in partial fulfillment of the requirements for the
Master of Arts degree in Anthropology

School of Sociological and Anthropological Studies

Faculty of Social Sciences

University of Ottawa

© Mylène Mongeon, Ottawa, Canada, 2016

Table of Content

List of Figures	iii
Legend	iv
Abstract	v
Acknowledgements	vi
Preface	vii
Introduction	viii
Chapter 1: Exploring the Stream of Life: Swimming, Flowing and Drowning	1
Life flowing in-between	1
Diving into the waters	7
Swimming	15
Chapter 2: Anchors Aweigh	26
World Spine Care	26
Global Health and Humanitarian Medicine	38
From Bechuanaland to Botswana	43
Shoshong Pilot Project	52
Chapter 3: Art, Craft, Improvisation and Creativity	55
A shadow on the wall	55
The artisan-craftsmen at work	66
Exploring evidence-based spine care and medicine	75
Chapter 4: Flow Obstructed: What can we learn from whirling rapids?	89
World Spine Day 2015 (in)formation	81
Emplaced skills: Healing in Botswana	88
Entanglement	101
Conclusion	104
Evidence: Instrument of legitimation and regulation	104
Concentration of Meaning	107
Appendix 1: Drawings	109
Bibliography	110

List of figures

Figure 1 – Lizard drawing

Figure 2 – Learning to see – August 28th 2015

Figure 3 – Learning to hear – August 31st 2015

Figure 4 – Learning to listen – September 10th-15th 2015

Figure 5 – Learning to learn – September 18th 2015

Figure 6 – River - Ingold, 2015, p.148

Figure 7 – WSC’s promotional poster

Figure 8 – WSC’s promotional poster

Figure 9 – Map of Africa with Botswana highlighted in green

Figure 10 – Agglomeration map of Botswana Roads

Figure 11 – Agglomeration map of Botswana Towns and Villages

Figure 12 – Crescent-shaped *kgotla* structure in Mahalapye

Figure 13 – The WSC house in Mahalapye village

Figure 14 – View from the road between Mahalapye and Shoshong

Figure 15 – A woman poses at her stand as she sells vegetable on the side of the road in Shoshong

Figure 16 – The WSC clinic in Shoshong

Figure 17 – Tree beside the WSC clinic in Shoshong

Figure 18 – Waiting area in front of the WSC clinic

Figure 19 – Spine Care Acrostic

Figure 20 – Treatment room in the WSC clinic in Shoshong

Figure 21 – “Straighten Up” program in Shoshong

Figure 22 – WSC volunteer treating a patient in Shoshong clinic

Figure 23 – WSC volunteers practicing how to 'drop' in order to perform a specific manipulation

Figure 24 – EBM hierarchy of evidence

Figure 25 – Tokoloshe Salts

Legend

- BDP** - Bechuanaland Democratic Party
- BJD** - Bone and Joint Decade
- CMCC** - Canadian Memorial Chiropractic College
- EBM** - Evidence-based medicine
- GSCI** - Global Spine Care Initiative
- LMS** - London Missionary Society
- MOH** - Ministry of Health
- MOU** - Memorandum of Understanding
- NDP** - National Development Plan
- NGO** - Non-Governmental Organization
- RCT** - Randomized Clinical Trial
- STS** - Science and Technology Studies
- UHA** - United Herbalist Association
- WHO** - World Health Organization
- WSC** - World Spine Care
- WSD** - World Spine Day
- ZCC** - Zion Christian Church

Abstract

Global health organizations attend to populations around the world applying an evidence-based model of care that often does not correspond with local realities on the ground. My thesis provides an in-depth anthropological study of how this occurs within practices in and around World Spine Care's (WSC) clinics in Shoshong and Mahalapye, Botswana. More specifically I explore how knowledge is negotiated and improvised on the ground, paying particular attention to the ways WSC volunteers are (un)able to work with local health workers as they desire. I show the flows and counter-flows implicated in the difficult task of reconciling skills with standards. The study is based on a total of 15 months of participation with WSC's organization through attending meetings, activities and shadowing practitioners both in Ottawa and in Botswana. Expanding the scope of their creative improvisational skills beyond the closed settings of WSC clinics is proposed as a way to move forward.

Résumé

Les organisations de santé mondiale offrent de l'assistance aux populations à travers le globe et ce, en faisant usage d'un modèle de soins fondés sur les preuves. Malheureusement, ce modèle de soins correspond rarement aux contextes locaux. En ce sens, ma thèse fournit une étude anthropologique approfondie de la manière dont cette situation émerge dans les pratiques au sein et aux alentours des cliniques de World Spine Care (WSC) situées à Mahalapye et à Shoshong au Botswana. Plus précisément, j'explore comment les acteurs impliqués improvisent et négocient leurs savoir-faire et leurs connaissances au quotidien. Je porte une attention particulière aux situations où les volontaires de WSC sont portés à interagir et à collaborer avec les professionnels de la santé locaux et m'intéresse aux dynamiques qui rendent ces échanges plus ou moins fructueux. Je fais ainsi ressortir les flux et contre-flux qui rendent difficiles la tâche de concilier 'en pratique' les compétences acquises à travers l'expérience avec les normes institutionnelles de la médecine fondée sur les preuves. Cette étude de cas est le résultat d'un cumul de 15 mois de travail de terrain. Durant cette période, j'ai entre autres, participé activement avec WSC en assistant à certaines de leurs réunions et activités et en faisant de l'observation en situation de travail ('shadowing') avec les praticiens de WSC à Ottawa et surtout, au Botswana. L'élargissement du champ d'application de leurs capacités d'improvisation créative au-delà des confins des cliniques WSC est proposé comme un moyen d'aller de l'avant.

Acknowledgements

Although I am the sole ‘official’ author of this thesis, I benefited from the help and support of many beautiful beings, all of whom we can feel through the pages to come.

Most and foremost, I am grateful for World Spine Care’s Teams, both working from abroad and in Botswana. A special thank you goes to the WSC volunteers with whom I had the opportunity to learn during my fieldwork and particularly to the WSC clinics supervisor Raquel. Your positive and joyful spirit is contagious; sharing a house with you was delightful and uplifting. I further want to express my gratitude to the Ministry of Labour and Home Affairs and the Ministry of Health of the Republic of Botswana who granted me with research permits.

Moreover, I am grateful for my dear friends Malcolm, Emily, Ulinda, Lynn, Phemelo, Irene, Onalena, Alpha, Kgomosto and Marcia who welcomed me into their lives with such warmth, I felt at ‘home’. Re a leboga.

My thesis supervisor Julie Laplante has been, throughout the last two years, my greatest ‘supporter’ and I cannot thank her enough for her continual encouragement and her flexibility. Grâce à toi Julie, je peux publier cette thèse étant fière de mon cheminement¹. Furthermore, my thesis committee members – Loes Knaapen and David Jaclin – as well as other university professors – especially Meg Stalcup – were always available to guide me in times of questioning or confusion. I appreciate your ongoing interest and ideas; this thesis would definitely not be the same without your input. I am also very grateful for Peggy, who voluntarily read through my thesis, provided comments and helped review the English grammar.

I also want to acknowledge my fellow anthropology graduate students and friends Nicolas, Antoine, Sean, Bradley and Christine. Thank you for your emotional, intellectual, spiritual and physical support. I couldn’t have asked for better work partners and friends to spend these months/years with. You rock.

Finally, I want to thank my family. Maman, Papa, Myriam (Jonathan), Thomas, je vous remercie pour l’amour inconditionnelle que vous m’offrez. Merci de me supporter dans mes idées folles et aventureuses, merci de me pousser à poursuivre mes passions et mes rêves quels qu’ils soient. Merci d’être présents².

¹ Translation: Because of you, Julie, I can publish this thesis and be proud of my journey.

² Translation: Maman, Papa, Myriam (Jonathan), Thomas, I thank you for your unconditional love. Thank you for supporting me in my ‘crazy’ and adventurous ideas. Thank you for encouraging me to pursue my passions and dreams – whatever they might be. Thank you for being present.

Preface

The document you are reading is the result of my Master thesis in anthropology. Its premier purpose is to fulfill the requirements of my Master of Arts (MA) in Anthropology program in order to obtain my MA degree. Still, I dare hope its content and energy will travel far beyond this context. I also hope this will reach World Spine Care and other non-governmental organizations operating in humanitarian medicine. Moreover, I am required to provide a copy of my research results (my thesis) to both the Ministry of Labour and Home Affairs and the Ministry of Health of the Republic of Botswana. These motivations are the ones that led me to write my MA thesis in English, which is definitely not the language in which I feel the most comfortable writing. This is actually my very first academic work written in English.

The names of my research participants – when they appear – have been changed. The only exceptions are the mention of Dr. Outerbridge (the WSC clinical director) and Dr. Raquel Rojo Delgado (clinics supervisor in Botswana (2015-2016)). The choice was made to keep their ‘real’ names since they are readily available and accessible to anyone who cares to investigate. Their positions within WSC betray their anonymity. I have, however, made the choice not to differentiate, in the text, between the four WSC volunteers – all professional practitioners, including Dr. Outerbridge and Dr. Rojo Delgado – who were in Botswana during my fieldwork. In this manner, ‘who said or did what’ remains anonymous within this group and the general term of ‘WSC volunteer’ is used indiscriminately whenever referring to one of the four volunteers. Note that although Dr. Outerbridge is not a volunteer but rather an employee of WSC, I chose to use the term ‘volunteer’ when referring to him as well. These precautions were taken as an attempt to hinder any negative repercussions that could potentially arise. Voluntary consent was obtained from all research participants in Botswana – including consent for photographs.

I would further like to acknowledge that not all photographs included in this document have been taken by myself. Some have been taken by WSC volunteers or by other research participants – either using my camera or their own. They all willingly shared their photographs with me. Again, in order to protect the identity of my research participants, I did not include specific ‘credits’ in the photographs description. I did, however, add a note – *taken by RP – whenever the photograph was taken by one of my research participants (RP).

Lastly, the passages written in *italic* in the text are either direct quotes from my research participants or from my own note book and journal. The ones “*in quotation*” are direct quotes from research participants while the ones directly incorporated in the text *without quotation marks* are extracts from my notes.

My hope is that you read this text akin to a curious child, avid to learn and explore new avenues. Enjoy your reading and feel free to share your ideas and comments. Thank you.

Introduction

“You are just walking around like a lizard!” These are the first words that were uttered to me by a motswana³ in hopes of starting a conversation – and not to convince me to buy something from them – since I had set foot in Botswana's capital Gaborone four days earlier. An elderly woman who was casually sitting in a car drinking beer with two younger men early on a Sunday morning (or was it late Saturday night?) yelled at me to *“stop!”* as I was walking purposefully and rather quickly from my guest house to the wifi station situated at the lodge's main building, not in a hurry, but moving swiftly since I was visibly carrying my cherished laptop in my hands and had been warned against thieves in the area. Curious and enthralled by her radiant sparkling yellow smile, her inviting eyes and most of all, her reference to lizards that had been captivating my attention since my arrival (lizards were persistently looming over me from the high branches of trees, the low leaves of plants and the depth of shadows on the walls) I halted my stride and approached the car's open window. The elderly woman extended her hands out the window to touch my arm and explained in a slightly broken English and drunken tone that she had noticed me walking around like a lizard, which meant that I must be a foreigner. She did not explain why or how foreigners and lizards are alike and I was too startled by her comment to think of inquiring further at that precise moment. She then asked where I was from and the four of us chatted a minute or two. They departed happily laughing and talking loudly in Setswana and I resumed my walk towards the wifi station, pondering at the strangeness of the exchange.

I sat down with difficulty on one of the chairs, chained like all the others to the plastic forest green table just outside the entrance of the lodge to the left, hidden away behind a wall of plants. I noticed that one of my faithful lizard friends was again, peering at me from the side of a clay pot resting on the floor to my right. I greeted him silently and asked him what was the meaning of his presence and waited for an answer. I wondered what he was trying to tell me, what I was supposed to learn or understand from him. I had long ago come to learn that 'coincidences' are never 'just coincidences' and that if one is willing and able to recognize and accept these beautiful instances of synchronicity, our environment and those who dwell in it can be the best of teachers in life. Not

³ Batswana is the term used to talk about the people of Botswana. The prefix *Mo*(tswana) is used when referring to a single individual and the prefix *Ba*(tswana) is used when referring to multiple individuals.

quite able to grasp the lizard's teachings and still not quite able to put into practice the art of patience, I embarked on a quest of sorts and did what I have done so many times as a university student: I turned towards some good old internet research in hopes of finding insights. There, I found an array of information on lizards, their physiology, habitat and diet and was reminded of their unique ability to shed or 'break off' their tails in situations of danger only to regrow a brand new one as if by magic. Although they are able to conjure this spell only once, it compelled me to reflect on the capacity to let go, to create and to transform. My search further led me to sites discussing spirit animals, a concept I was already familiar with. Some of the information I uncovered in the process indicated that:

“Lizard is proposing immediate change in one or more areas of your life. You may need to let go of old ideas, patterns, belief systems, habits, actions or lifestyle... It is time to let go. Lizard prompts the need to go within and examine your present reality and then, move with confidence and utmost assuredness into a new chapter of your life.” (Woolcott, n.d.)

This particular passage resonated strongly with my situation and experience as I was embarking on a four months' journey to another continent, in a country unknown to my senses and where I knew literally no one, in the hopes of engaging in anthropological research - which requires flexibility and openness. I was without a doubt experiencing some anxiety during this first week and lacked self-confidence in my ability to succeed the immense task ahead. I welcomed the advice to 'go within' and 'move with confidence' into this new and emerging chapter of my life and it reinforced my faith in knowing that I was *'in the right place, at the right moment, with the right people'* - a sentence I would hear time and again in the months to come. Another section of the text I found while searching the internet caught my interest. It read: “Lizards are very sensitive to vibrations from the ground; they are adept at subtle perception. They have amazing hearing capacity, and with their sharp eyes they are able to sense the most minute of movements.” (ibid.) It reminded me that attuning my attention and senses in-the-world was going to be a key component of my fieldwork. Feeling grateful for the lizards' teachings, I meditated on those discoveries while anchoring this moment and energy through a drawing, etched on the first page of the notebook I would carry with me and write in every day for the next hundred and twenty days (Figure 1). I clearly remember



Figure 1 Lizard drawing

saying to myself, heart smiling, that *being “like a lizard” might just have been a praise after all* and from that moment on, I strived, and still strive, to *walk around like a lizard* to the best of my abilities and to continuously sharpen those abilities.

Aspiring to be as attentive, agile, and perceptive as a lizard while trying to understand how knowledge is improvised within and around World Spine Care’s (WSC) initiative in Botswana would prove to be a constant yet motivating challenge. WSC is a “multinational not-for-profit, charitable” (WSC, 2016), global health, humanitarian organization (hereafter more simply referred to as a “global charity⁴”) who specializes in the evidence-based management of musculoskeletal conditions. The deployment of their initiatives is done through the implementation of evidence-based care clinics in communities where access to spinal care is believed to be lacking. However, while entertaining this idea that access to spine care is lacking, WSC does not engage concrete steps that would allow to genuinely take into account the work of local health workers, rather ignoring most of their practices, assuming they are inadequate and insufficient. Still, collaborating with local health workers – including traditional doctors – is proposed by WSC as one of their core values (and goals) on multiple platforms such as their website (WSC, 2016), in official publications (Haldeman et al., 2015) and as part of their Memorandum of Understanding with Botswana’s Ministry of Health (WSC & MOH, 2011). Having an anthropologist attend to this discrepancy within their projects is a novelty for WSC and its members (as well as I) are hopeful I can provide ways to move forward. For this purpose, I ask how the actors involved negotiate and improvise – or alternately, fail to negotiate and improvise – knowledge in everyday practices in and around the clinics? The actors involved include WSC members (both those who are working in Botswana (WSC volunteers) and from their home countries), local health workers (including biomedical practitioners, traditional doctors, izangoma and faith healers), WSC’s partners in Botswana (mainly the hospital administration staff and the Ministry of Health (MOH) employees)

⁴ WSC describes their organization as either a “multinational not-for-profit charitable organization” (WSC, 2016), a “global charity” (WSC, 2016) or again as a “NGO” (personal communication). I moreover situate WSC within global health and humanitarian medicine. This is where this initial long description of WSC stems from: ‘WSC is a multinational not-for-profit, charitable, global health, humanitarian organization’. Nonetheless, to alleviate the density of the text, I will hereafter be referring to WSC as a ‘global charity’ - title that I find evocative of both the way in which WSC presents itself (it is, one of the titles they use) and the way in which I situate WSC within global health and humanitarian medicine.

as well as community members that either attend the clinics as patients or that are in a way or another engaged with WSC.

The specific questions I asked along the way during my time in Botswana, in relation to my main overlapping question, are the following; **1.** Which ontological categories do practitioners evoke to justify and legitimate their practices (e.g. Evidence-based-medicine, science, art, craft, tradition, god, ancestors)? **2.** How are these ontological categories discussed and how do they play into the legitimacy of the practices of the various actors involved? **3.** What occurs – and does not occur – when WSC volunteers and other actors meet and intra-act? For instance, what is said and left untold? What is done or undone as the actors involved move from the clinical to the community setting, etc.? **4.** How do WSC volunteers as well as local health workers tend to bodily conditions inhibiting movement in Shoshong and Mahalapye Villages? **5.** What kinds of skills, senses and manipulations, constitute ways of communicating and understanding the problem at hand? I propose that attending to these specific questions in practice can guide me towards an understanding of how knowledge is negotiated and improvised within this context.

Overview of Chapters

Chapter 1 of this thesis presents my approach and methodology. I design my approach within anthropological works that lean towards ‘experience’ or phenomenology, thus challenging the modern perception that the world is made of separate, distinct entities. As an anthropologist, I do not pretend to be a mere observer, studying an object that can be clearly delimited. Rather, I recognize my emplacement in the flow of life and opt for a methodology that strives to learn from and with the environment and the beings (humans and non humans) that dwell in it – very much in ingoldian terms. This goes along with ideas stemming from Science and Technology Studies (STS), namely the concept of “intra-action” borrowed from Barad (2007). This concept is central to my preoccupation with what occurs in-between – in the transformative correspondences of open-ended life forms rather than between subjects and objects. This first chapter will also be useful to explain my journey as a master student as I will explain how this particular project came to life. My hope is that clearly exploring the grounds of my approach and methodology will help the readers navigate this endeavour with me without getting lost or drowning in the turmoil.

Chapter 2 will follow, with an array of contextual information. This chapter is divided into four main sections: World Spine Care, Global Health and Humanitarian Medicine, From Bechuanaland to Botswana and finally, Shoshong Pilot Project. Most of the actors involved will be introduced and their interrelations will be highlighted. Some of the dynamics within WSC global charity will be described and situated within humanitarian medicine. This will be useful to grasp how WSC operates and will provide insights to understand why they operate this way. Further, exploring Botswana's histories will bring forth the particular context in which WSC is implementing their project. These sections will culminate with the presentation of Shoshong Pilot Project – a medical humanitarian initiative, implemented by the global charity of WSC, in Botswana. Moreover, the descriptions are accompanied by short analyses where they were deemed useful to grasp the dynamics (flows and counter-flows) at play in the 'coming into being of WSC in Botswana'.

In chapter 3, I will delve deeper into the everyday practices of WSC volunteers in Botswana, starting with a narrative of my first day visiting and shadowing at the WSC clinic in Shoshong in early September 2015. This chapter explore ways of knowing as they emerge in practice – more specifically within the WSC clinic, with WSC volunteers. Chiropractic (official profession of the WSC volunteers working in Botswana) will be explored as an art and a craft that requires the use of creative improvisation and the learning and mastery of skills. This discussion will lead me to problematize the 'art vs. science' dichotomy that has, since the emergence and institutionalization of evidence-based-medicine, dominated the debate relative to the (ir)relevance of evidence-based formalized guidelines in practice. I will argue that this dichotomy is not useful to understand how knowledge emerges in practice since the radical stances upheld both by 'art' and 'science' proponents fail to reconcile potential commensurabilities. Alternately, medical practitioners – WSC volunteers at least – seem to navigate a space in-between in their everyday work.

Chapter 4 will bring us right into the whirling rapids, where flows and counter-flows meet and collide. By exploring the events that unfolded during and following a one-day workshop and seminar addressed to local physiotherapists and held by WSC volunteers at Mahalapye Hospital, I will highlight what happens – and what does not happen - when WSC members and volunteers meet and intra-act with Batswana health professionals. I will argue that WSC's strict upholding of

EBM's formal principles in this context prevents them from recognizing the physiotherapists' ability to navigate the uncertainties inherent to healing by making use of skills and creative improvisation. Conversely, this situation only works to impede WSC's capacity – and opportunity – to collaborate with local health workers. Moreover, by challenging the universality of biomedicine and by exploring the multiple ways in which healing occurs in Botswana (traditional medicine, faith healing), I will argue that collaborating with and learning from local health workers emerge as an obvious line to follow if WSC hopes – as its members argue – to 'adapt to the culture' and render their services 'culturally sensitive'. This, I assert, is especially important in the context of humanitarian medicine where foreign organizations such as WSC implement projects in countries where medicine and bodies are understood differently. My suggestion is thus to bring our attention to the more or less successful accomplishment of binding practice with protocols - the point is to explore how practitioners manage to make these meaningful in practice.

The concluding discussion will serve as an attempt to unravel the meaning of the flows and counter-flows explored in the previous chapters. 'Officially' recognizing that skills acquired through practice and experience are a legitimate source of knowledge appear to be the challenge. This, in turn, impedes WSC's potential to move forward. Following a discussion pertaining to the rhetorical and political advantages associated with 'science', I will argue that WSC's choices to strictly follow EBM's formal principles are strategic moves that allow them to gain legitimacy as well as to navigate global health rather than a fundamental paradigmatic allegiance to EBM's formal principles in practice. Hence, drawing on chapter 3, I will argue that in order to move forward, WSC members and volunteers would *not* necessitate to change the way they work but rather to expand the scope of their creative improvisational skills and apply them to what is going on beyond the confine of their clinics. This, I argue would pave the way to not only learn with and from local health workers, but could also participate in bringing global health and humanitarian medicine closer to the flow of life, that is closer to 'what is going on' in practice.

Chapter 1

Exploring the Stream of Life: Swimming, Flowing and Drowning

Life flowing in-between

Throughout the elaboration of the approach for my research project, I struggled to find an angle from which I felt comfortable and confident to apprehend, discuss, scrutinize and engage with such loaded concepts such as biomedicine, humanitarian aid, globalization and knowledge. I was looking for an open-ended approach that would allow a dialogue to emerge and flow in-between, somewhere in the middle – hence avoiding to reify objects, concepts and categories. Along this line, Ingold (2011), drawing on Deleuze, argues that life has no set beginning nor determined point of arrival but rather flows forever in-between. Life is a dynamic flow, a movement that is lived “along lines...lines of flight, or... lines of becoming” (ibid, p.83).

“[A] line of becoming has neither beginning nor end...[it] has only a middle...A becoming is always in the middle: one can only get by in the middle. A becoming is neither one or two, nor the relation of the two; it is the in-between” (Deleuze and Guattari 2004, p.323, cited in ibid., p.83)

Adding on to this, Ingold evocatively explains that “the lifelines of organisms” run “forever in-between, as the river flows between its bank in a direction orthogonal to their transverse connection.” (ibid., p.14; see also Ingold, 2015, p.107) Beings (including humans, but also animals, plants, etc.) are made up of a multitude of lines, travelling along trajectories and it is the entanglement, or the “entwining of these ever-extending trajectories” that “comprises the texture of the world” (Hägerstrand 1976, cited in ibid., p.84). In his sense, beings can be better described as ‘becomings’. In doing so, Ingold intends to “celebrate the openness” (ibid.) of life rather than its closure. This openness and texture of life can further be illustrated by a meshwork. In a meshwork, Ingold explains, “there are no insides or outsides, no enclosures or disclosures, only openings and ways through.” (ibid.) In juxtaposing this approach to architecture – and to ‘buildings’ – he proposes “‘the significant division’... is not so much between inside and outside, as between the movement ‘from the inside going out’, and ‘from the outside going in’” (Ingold 2004, cited in ibid., p.85). In the context of my thesis, this allows to look at what happens when, for instance, patients, volunteers and other actors, move through the World Spine Care clinics,

without having to generate a division between what happens ‘inside’ and ‘outside’ these seemingly closed environments nor through any other mediums or buildings such as government offices, shops or the gated WSC house.

Moreover, Ingold calls for a distinction between ethnography and anthropology. He explains that ethnography is documentary in nature while anthropology is transformative. Ethnography, he says, aims at “documenting the lives and times of their host communities” (Ingold, 2013, p.2). This kind of learning allows to accumulate information *about* an object of study but does not allow to learn *from* it. Conversely, doing anthropology, is necessarily a process through which one learns *with* and *from* its research environment and participants since, as I will discuss in the following section, the anthropologist is also in-the-world and cannot be solely an ‘observer’ – he moves along with its research participants, in the shared environment. This conceptualization of anthropology stems from a refusal to perceive the world as binary, divided in categories such as ‘subject/object’, ‘nature/culture’ to rather focus on the entanglements of becomings as they move and intra-act in the world. Understanding this, it becomes evident that doing ethnography – that is, accumulating information about an object of study – is limiting. As an ethnographer, Ingold explains, “I look back over the information I have collected in order to account for trends and patterns” (ibid, p.3). Doing so “is to stipulate that knowledge is to be reconstructed on the outside, as an edifice built ‘after the fact’” (ibid, p.5). In this way, the information gathered is congealed and put into a box. On the other hand, as an anthropologist, “I take what I have learned and move *forward*, all the while of course reflecting on my earlier experiences” (ibid, p.3). It is a continuous process – movement –, one in which the anthropologist is encouraged to discuss and speculate freely on the human condition and its potential. Hence, movements are central to becomings and knowledge is both generated through and carried on with these movements. Paying attention to movements in order to explore ways of knowing as they emerge in practice arises as a valuable strategy.

Following this approach, it would be counterproductive to explore how knowledge is improvised and negotiated if one starts with a static perception of knowledge. If we take for instance, medical knowledge, focusing on the domination of biomedical knowledge on traditional knowledge – only possible if we understand them as being distinct and pre-existing fixed entities – circumvents any efforts to ‘keep going’. It allows us to learn *about* them but creates a barrier to

learn *from* them. This, Ingold argues, impedes the fulfillment of anthropology's core potential to "take what we learn and move forward" (Ingold, 2012). Alternately, if we understand knowledge as inherently dynamic, continuously emerging and therefore negotiated and improvised as it moves and travels through environments in becoming, we open the possibility to learn *from* it. Moreover, anthropologists – such as Langwick who has been working with traditional healers in Tanzania for over 30 years – have shown that a static perception of knowledge is misleading:

"modern and traditional knowledge are co-produced, as are the experts and forms of expertise related to these types of knowledge. [...]. Efforts to capture the dynamism of the categories of traditional and modern medicine as they are being negotiated, elaborated, maintained, or allowed to fade away call for ethnography." (Langwick, 2011, p.16-17)

Langwick's call for ethnography in this fluid sense can correspond to what Ingold prefers calling anthropology (to dissociate himself from what ethnography has become in its documentary form as discussed above). In this sense, Langwick's and Ingold's approach seems particularly fitting and useful to study what happens in practice as knowledge emerges and intra-weaves in-the-world. Ingold thus suggests that anthropologists should abandon the study of preconceived entities to rather "follow what is going on, tracing the multiple trails of becoming, wherever they lead" (2011, p.14).

Learning *from*, is also always learning *with*: we (humans) are also engaged in the meshwork of the world. Subsequently, anthropology *with* life considers the ways humans are entangled in-the-world and with other types of living organisms (Ingold, 2012). Humans are after all, part of the world and are ultimately "*of the same stuff*" (Abram, 1996, p.67) as the rest of its constituents

"To perceive the environment is not to look back on the things to be found in it, or to discern their congealed shapes and layouts, but to join with them in the material flows and movements contributing to their – and our – ongoing formation" (Ingold, 2011, p.88)

If one accepts Ingold's argument that beings are always moving in-the-world, one cannot presume to exclude the researcher from the world he is studying. The scientific ideal arguing that researchers should remain distant and objective in relation to their objects of study to avoid 'bias' suddenly becomes absurd in this context. This refusal to begin with the subject/object dichotomy (that follows from the broader nature/culture dichotomy) as well as the refusal to understand the world as made up of fixed objects or entities is also endorsed by other approaches in anthropology.

For instance, “a phenomenological stance does not begin with a priori ‘objects’, ‘models’, ‘concepts’ or ‘protocols’; rather it is the experience in the context that tells how these ‘objects’ are brought into being (or not).” (Laplante, 2015, p.45) Phenomenology, inspired greatly from Merleau-Ponty’s work, can be introduced as “the Western philosophical tradition that has most forcefully called into question the modern assumption of a single, wholly determinable, objective reality.” (Abram, 1996, p.31) This positioning felt appropriate to undertake my research since, in calling into question the assumption of a single objective reality, phenomenology does not deny the modern enterprise (in which ‘science’ is tightly embedded), but alternately acknowledges the multitude of realities as the world is perpetually emerging, perceived and experienced. This opens up the possibility, for instance, to discuss what happens when a global charity such as WSC implements a biomedical initiative in a setting where biomedicine is perceived and experienced differently than it is in the ‘West’ and where traditional doctors are active, without having to ‘pick a side’. Rather, it allows for a dialogue to take place in-the-middle.

Phenomenology also works to dismantle the divide between ‘subject’ and ‘object’ by exploring the concept of perception. Perception “is precisely this reciprocity, the ongoing interchange between my body and the entities that surround it.” (ibid, p.52). Perception is thus made possible by the co-existence and co-mingling of beings and understood in this way, is necessarily participatory. “Perception always involves [...] the experience of an active interplay, or coupling, between the perceiving body and that which it perceives.” (ibid, p.57) Hence, “the reciprocal presence of the sentient in the sensible and of the sensible in the sentient” is undeniable (ibid, p.66). In simpler words, Abram is explaining that the being I perceive - for example, a dog - also perceives me through his own senses. The dog and I simultaneously perceive each other and are being perceived by the other. That is to say, what is perceived also acts as a perceiver and vice versa. Hence, the barrier between the sensible (perceived / object) and the sensitive (perceiver / subject) is blurred. Abram brings this line of thought further and proposes that any “visible, tangible form” has the potential to perceive: the world (including us) is always both sentient and sensitive and our realities emerge from our constant intra-actions and mutual perception with(in) it. According to phenomenologists, there are thus no set objects to start with. Rather, phenomenology brings forth the very shifting features of the world, thus accentuating the active and participatory component of perception. In short, the world is constantly transforming and attuning itself (ibid): if we go back to the possible encounter between a dog and I, it is unequivocal

that as we mutually perceive each other and attune our senses to our co-presence, we will adjust and rearrange our body and our actions. If I meet this dog again on a different occasion, our prior encounter will influence the present one and the dog, remembering my smell could either run away or run towards me. Moreover, if I am in a different mood today than I was last time, our mutual perception will be changed and our intra-actions will differ. It thus becomes clear that the ways in which we engage with our environment will guide what we are (or not) perceiving and will shape our trajectories as well as our reality. Phenomenology, in this way, allows us to explore our experience in-the-world as we continuously improvise and negotiate our way through life.

Another approach that follows a similar conceptualization of ‘objects’ can be found in the Science and Technology Study (STS) branch of anthropology. The basic aim of STS is to investigate “how scientific knowledge and technological artifacts are *constructed* ... [F]or STS, science and technology are active processes, and should be studied as such.” (Sismondo, 2010, p.11) Further, “STS takes a variety of anti-essentialist positions with respect to science and technology” (ibid) and has “for many years probed several alternatives to the modernist divide between subject and object” (Latour, 2009, p.459). Anthropologists and researchers such as Donna Haraway (2008), Karen Barad (2007) and Bruno Latour (1987, 2000) can be situated in this field. Barad, in her compelling book *Meeting the Universe Halfway*, builds a convincing argument using quantum physics experiments to show that the classic Cartesian and Newtonian ways of understand the world is flawed. More specifically, drawing on the work of Bohr, she challenges the “existence of individual objects with determinate properties that are independent of our experimental investigations of them” (2007, p.106). Rather, she argues that “*the nature of the observed phenomenon changes with corresponding changes in the apparatus*” (ibid). She reaches this conclusion through an examination of Bohr’s multiple ‘two-slit experiments’ meant to study electrons’ behavior. Although the specificities of these experiments are fascinating and explained cleverly in Barad’s book, I will here focus on the results and their implications, which are of interests for my thesis⁵. In short, she challenges Newtonian physics assumption of ‘measurement transparency’ by demonstrating that the ‘object’ being measured shifts depending on the measurement method used and more importantly, that this shift cannot be measured. In doing so,

⁵ For further information, see Barad (2007) *Chapter Three: Niels Bohr’s Philosophy-Physics: Quantum Physics and the nature of Knowledge and Reality*.

she argues that although Newtonian or ‘Classic’ Physics recognizes that “things are disturbed when we measure them” (ibid, p.107), their pretention to objectivity justified by their assertion to be successfully able to measure this disturbance and subtract it from the results, is flawed.

“Now, the fact that the measurement interaction is indeterminable is crucial because it means that we can’t...deduce the properties that the particle (is presumed to have) had before the measurement... What it does mean is that we are not entitled to ascribe the value that we obtained for the position to some abstract notion of a measurement-independent object” (ibid, p.113)⁶

This leads her to argue that there exists no “intrinsic separability of knower and known” (ibid, p.107) and that “*there is no unambiguous way to differentiate between the ‘object’ and the ‘agencies of observation’... No inherent/Cartesian subject-object distinction exists.*” (ibid, p.114) Following this thread, she discusses the incidence this has on common assumptions relating to research. First, unfolding from Barad’s analysis of Bohr’s findings, it is clear that: “since... practices play a crucial role in the world, they must be a part of scientific theorizing; that is, Bohr situates practice within theory.” (ibid, p.121) Further and most importantly, Barad explains: “as a result, method, measurement, description, interpretation, epistemology, and ontology are not separable considerations.” (ibid) Correspondingly, Ingold also holds a similar discourse when he argues that “things [cannot] be ‘theorised’ in isolation from what is going on in the world” (Ingold, 2013, p.4).

Barad continues further by suggesting the replacement of the term ‘interaction’ by that of ‘intra-action’ which provides an alternative comprehension of the world’s dynamics:

“I introduce the term ‘intra-action’ in recognition of their [(entities)] ontological inseparability, in contrast to the usual ‘interaction’, which relies on a metaphysics of individualism (in particular, the prior existence of separately determined entities).” (Barad, 2007, p.128)

This, she says, opens up the opportunity to explore how seemingly separate entities, creating a dichotomous worldview – that opposes “‘nature’ and ‘culture’, ‘human’ and ‘non-human’ ... ‘science’ and ‘society’– are produced [and] what that productions entails” (ibid, p.131). Her

⁶ The complete quote includes: “This does not mean that we can’t measure position accurately; indeed, we can (we just use an apparatus fixed parts)”. Hence, she explains the reproducibility of scientific experiment by the use of a fixed apparatus. This way, the interference or disturbance the measurements apparatus has can be predicted but nonetheless cannot be ‘measured’.

proposition was, since then, taken up by some anthropologists who applied her concept of intra-action to explore the intra-relations between humans, environments and the creatures inhabiting these environments. In this perspective, Maustard, Davis and Cowles explain that “‘intra-acting’ speaks better for focusing on how parties meet and change as a result from their meeting, as opposed to ‘interacting’, which refers to parties meeting and leaving each other unchanged.” (2013, p. 323). The transformative quality of intra-action is in line with that of Ingold’s focus on learning *from* and learning *with* the world. Further, in my research, knowledge(s) are not regarded as closed entities that suddenly meet, but as ‘entities’ whose emergence is corollary to their ‘meeting’ and therefore to their enactment in practice, improvisation and negotiation. This is also true for the ways beings intra-act with other beings and their environments (and not solely regarding the question of knowledge) as it is the entanglement of their trajectories, hence of their becomings, that form the ‘texture of the world’ (Ingold, 2012). Similarly, Donna Haraway, another anthropologist situated in STS argues, as Ingold also does, that “becoming is always becoming with” (2008, p.244). This notion of ‘being with’, similar to that of learning with proposed earlier, is also used by other anthropologists such as Gieser who, drawing on Heidegger (1993), asserts that:

“our being is never alone but always ‘with’ other beings...Our being is therefore neither located in ourselves as subjects nor in the objects we are dealing with, but in between in our relationship with the world” (Gieser, 2008, p.301-302)

Hence, whenever I substitute the prefix ‘inter’ for ‘intra’ (intra-relation, intra-action, etc.), I aim to highlight the transformative, moving and emerging quality of the world and of its inhabitant’s trajectories.

Diving into the waters

Succinctly, life is understood as a movement, continuously flowing and emerging as becomings entangle and intra-weave to create the world. The challenge is now to understand how this approach can be enacted in practice as we engage in research. Ingold argues that the only way to ‘know’ – hence to gain knowledge which is, after all, the aim of any research – is to immerse and engage yourself in-the-world one is trying to understand (2012). As discussed earlier, humans are in-the-world and cannot be separated from their ‘object’ of study. Ingold reminds us that the very fact that one is able to ‘observe’ is dependent on his presence and engagement in-the-world.

Consequently, the processes of observation and participation are not contradictory, but complementary. It is from this unfolding that he elaborates his conception of ‘participant observation’ as a methodological approach in anthropology in order to learn *with* and *from* the world. The education of our senses is to Ingold, synonymous to participant observation, here defined as a tool to “know from the inside” (2013, p.1). To educate the senses, one needs to learn and to learn, one needs to educate the sense. Thus, “learning to learn” (ibid) becomes the primary task of any anthropologist: “What we might call ‘research’ or even ‘fieldwork’, is in truth a protracted masterclass in which the novice gradually learns to see things, and to hear and feel them too” (ibid, p.2).

I now want to take a moment to share with you another instance of synchronicity, similar to that of the lizard, that happened as I was writing this section. My earlier understanding of Ingold’s method of participant observation was grounded on a text that was put together after his talk at a conference in Buenos Aires in 2012. The paper is titled: *Knowing from the Inside: Reconfiguring the Relations Between Anthropology and Ethnography* and was used as the reference to write the first chapter (*Knowing from the inside*) of his book *Making*, published in 2013. The content of the two texts is very similar albeit for the emphasis on ‘learning to learn’ that only emerges in the latter published version. It is mentioned *once* in the former text but it did not catch my attention and the expression does not appear in my project proposal. I only acquainted myself with the latter text this week, as I was revisiting some of Ingold’s work to reinforce my understanding and explanation of his methods. In the early stage of my fieldwork in Botswana, I created four drawings⁷ depicting, in a ‘non-textual form’, my experience (to see more drawings I

⁷ I here want to point out that the use of ‘art’ – more precisely drawings – as anthropological material is consistent with my approach. In *Making*, after discussing the similarities between the way we ‘do’ anthropology and the way artists work, Ingold shares his reflections: “If there are similarities between the ways in which artists and anthropologists study with the world, then could we not regard the artwork as a result of something like an anthropological study, rather than as an object of study? We are already used to the ideas that the results of anthropological research need not be confined to written texts. They may also include photographs and films. But could they also include drawings, paintings or sculpture? ...Conversely, could not works of art be regarded as forms of anthropology, albeit ‘written’ in non-verbal media?” (2013, p.8) It is thus with this in mind that I chose to experiment with drawings and include some in my thesis as a non-verbal ‘result’ of my research. That being said, although I complement the drawings with a verbal account, I invite you to also consider the drawings themselves, as they stand on their own – and to pay attention to whatever feelings or meanings this experience might inspire in you – and not solely as a complement of or dependant on the written text.

created during fieldwork, see Appendix 1). I like to draw mandalas⁸ - which are basically just drawings that have a circular shape – while I meditate on my feelings and work through challenges in life. I have been drawing mandalas for a few years now and they (almost) always help me to clear my mind and find balance. The process I follow can be summarized this way: I sit down in a quiet area with an array of colored pencils, a compass, a ruler, an eraser and of course, a piece of paper. I make no plan. I just draw and let my emotions flood the paper. Once I feel the lines are ‘complete’, I bring the mandala to life with colors, again, not following a plan. When I am done,

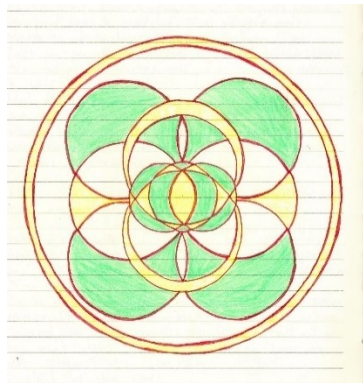


Figure 2 Learning to see - 08/28/15

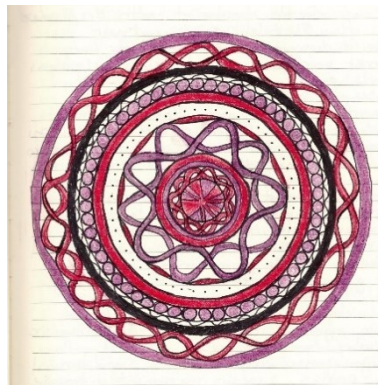


Figure 3 Learning to hear - 08/31/15

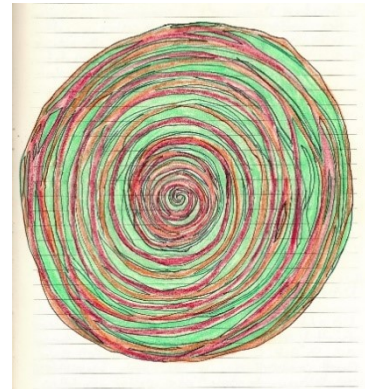


Figure 4 Learning to listen - 09/10/15

if a specific word or sentence comes to my mind when I gaze at the mandala, I name it, but that is not always the case. The first four drawings I made in Botswana are somewhat part of a ‘series’ and all have ‘titles’. After ‘learning to see’ (Figure 2), ‘learning to hear’ (Figure 3) and ‘learning to listen’ (Figure 4), it became evident to me that what I was doing was actually ‘learning to learn’ (Figure 5). In this way, I want to attest to the intuitiveness of Ingold’s approach. I was surprised to find out that the title of the first heading of the first chapter of his book *Making* was: ‘Learning

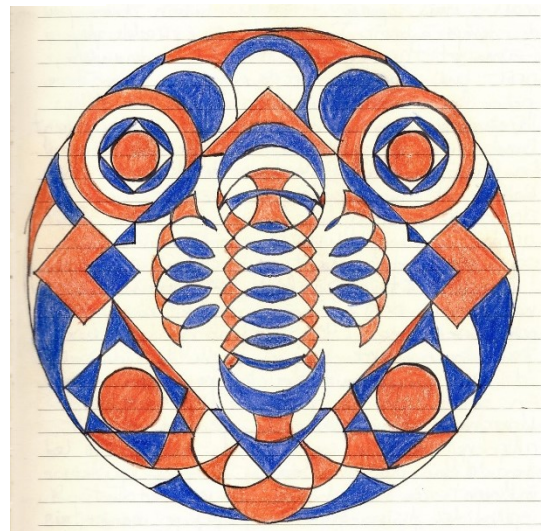


Figure 5 Learning to learn - 09/18/15

⁸ Here are two of many definitions explaining what mandalas are and how they can be used: 1. “In short, a mandala can be seen as a hypnotic, letting the creative hemisphere of our mind run a little more free while our analytical mind takes a little nap. That said, we use the mandala as a form of meditation for the purpose of gaining knowledge.” (Avia Venefica, 2015) 2. “Loosely translated to mean "circle," a mandala is far more than a simple shape. It...can be seen as a model for the organizational structure of life itself” (The Mandala Project, 2010)

to learn'. I did not remember reading the expression – besides in my own notebook, on top of one of my drawings. I felt reassured in the ways I engage(d) with research and am convinced – through my own experience – that learning to learn by attuning our senses in the world is one of the most relevant methods in doing anthropology.

Paying acute attention to “what the world has to tell us” (2013, p.1) is, Ingold asserts, the only imaginable way one can come to an in-depth understanding of ‘what is going on’. Knowing, he says, “is a process of active following, of *going along* ... Learning to learn, for them [(anthropologists)] as for the practitioners of any other discipline, means shaking off, instead of applying, the preconceptions that might otherwise give premature shape to their observations” (ibid, p.1-2). This is why, for instance, the concepts used and elaborated in the following chapters emerged from my fieldwork rather than gave my fieldwork direction. The concepts used are the ones that emerged as useful and appropriate during and after my time in Botswana. The intrinsic learning process of anthropology is long and continuous. It precedes as much as it succeeds the ‘field research’, it *is* movement. This exercise creates a space for sharing in-between, to discuss, imagine and share or, as Ingold puts it:

“to join with people in their speculations about what life *might* or *could* be like, in ways nevertheless grounded in a profound understanding of what life *is* like in particular times and places” (ibid, p. 4)

My hope is that, by understanding how the actors involved in and around the WSC clinics in Botswana improvise and negotiate their knowledge in practice (‘grounded in an understanding of what life *is* like in this particular time and place’), I will be able to provide insights on potential ways for WSC to ‘move forward’ in a constructive, positive and flowing manner (‘speculations about what life *might* or *could* be like’).

As briefly discussed earlier, this way of doing fieldwork is embedded in anthropology while moving away from ethnography and I align my positioning with that of Ingold when he asserts:

“[an] anthropology that has been liberated from ethnography...would no longer be tied down by a retrospective commitment to descriptive fidelity. On the contrary, it would be free to bring ways of knowing and feeling shaped through transformational engagements with people from around the world, both within and beyond the settings of fieldwork, to the essentially prospective task of helping to find way into a future common to all of us.” (ibid, p.6)

Furthermore, Ingold points out that enskilment is of utmost importance to gain knowledge. Knowledge is “inhering in skills of perception and capacities of judgement that develop in the course of direct, practical and sensuous engagements with our surroundings.” (ibid, p.5) Hence, as I have hinted throughout the previous section, knowledge is tightly woven into ‘doing’⁹. These “sensuous engagements with our surrounding” are also central to phenomenology in which the body is understood as the medium through which we perceive, sensing therefore being what makes our experience in-the-world possible. We are constantly engaging with one another, our environment and its inhabitants as we participate and experience the world. Abram, again drawing on Merleau-Ponty argues that our perception emerges from synaesthesia – that is, from the “[intra-communication] and overlap” of our senses (1996, p.61). The human body (generally) is capable of hearing, touching, smelling, seeing and tasting but it is the intra-play and intra-communication of those abilities that allow us to experience and engage in our environment. We constantly engage one another and communicate with our body as we ourselves, as becomings, organically experience the world by engaging with and participating in it. Sarah Pink, situated in the field of sensorial anthropology, for her part, although choosing to use the term ‘ethnography’ instead of ‘anthropology’ as suggested by Ingold, situates her sensory approach along similar lines:

“ethnography is a process of creating and representing knowledge...that is based on ethnographers’ own experiences. It does not claim to produce an objective or truthful account of reality, but should aim to offer versions of ethnographers’ experiences of reality that are as loyal as possible to the context, negotiations and intersubjectivities through which the knowledge was produced.” (Pink, 2007, p.22 cited in Pink, 2009, p.8)

She further asserts that concepts of experience, knowing and emplacement are ‘central’ to sensorial anthropology. The concept of emplacement was coined by Howes in ‘replacement’ to - or rather building on – the concept of embodiment: “while a paradigm of ‘embodiment’ implies an integration of mind and body, the emergent paradigm of emplacement suggests the sensuous [intra]-relationship of body-mind-environment”, hence replacing humans in-the-world (Howes, 2005, p.7 cited in Pink, 2009, p.25). Additionally, Pink argues for a reconfiguration of sensorial anthropology through the concept of space and place – which can be linked to Ingold’s claim that knowledge is to be found in particular times and places. In doing so, she argues, sensorial

⁹ In this sense, knowledge can alternately be expressed using the term ‘knowing’ in order to highlight its dynamic and active character. This echoes the work of Farquhar (1994) on *The clinical encounter of Chinese medicine* along with her concept of “knowing practice”.

anthropology recognizes not only the particular ‘emplacement’ of the researcher but opens the doors to “[acknowledge] the political and ideological agendas and power relations integral to the contexts and circumstances of [anthro]pologic processes.” (Pink, 2009, p.23) This, I find, is useful for my endeavour, especially since the anthropological processes I embarked in involve multiple ‘times/spaces and places’ and being able to grasp how these intra-act and intra-weave has been a great part of my learning journey and is part of my ‘emplacement’ as an individual and as an anthropologist.

Lastly, and to introduce the next section, I want to steer us once again towards Ingold's conception of anthropology to highlight the emphasis he puts on skills. For Ingold, participant observation implies the process of ‘learning to learn’ in order to ‘know from the inside’. Geiser, drawing on Ingold, explains that to gain knowledge individuals “have to ‘discover’ cultural knowledge for themselves while being engaged in skilful activities” (2008, p.300). Ingold argues that to ‘know from the inside’, we have to be “*doing things ourselves*” (2013, p.9). Thus, “it is by...acquiring for ourselves some of the knowledge and skills required to practice them, that we have most to learn” (ibid, p.2). Hence, in this view, the attainment of knowledge is in part dependant on the mastery of skills. The question that remains is: what happens if I am unable to successfully learn and master the skills used by the people with whom I am doing research? For instance, I contend that weaving a basket (a popular craft in Botswana) is incredible, but it is also incredibly hard – what happens if I fail to properly learn the skills required to ‘know’ how to weave a basket? What if one of the most prepared and most popular local dish in Botswana is ‘seswaa’ - made of beef or lamb meat – but that I am deadly allergic to beef, which triggers an anaphylactic reaction if I touch it or ingest it? I am therefore unable to actively learn to prepare the dish. More importantly, what happens if some of my research participants are certified chiropractors or physiotherapists? Does this mean that prior to engaging in fieldwork, I should also spend four years studying chiropractic in order to ‘know from the inside’ the way chiropractors move and are in-the-world? Does this mean that I cannot hope to ‘know’ and that my endeavour is doomed? I certainly hope it is not. Likewise, how do I explore the ways in which the actors involved in my research negotiate and improvise knowledge if I have no way of accounting for instances where they fail to ‘learn’ with one another. Should these be ignored? Conversely, I contend, as others have pointed out that “there is struggle in learning” (Hahn, 2007, p.49, cited in Pink, 2009, p.36) and I argue that there is much to learn and much knowledge to be attained from this process as

well. Hence, I move towards a conception of life that remains in movement, but where the flow can be agitated, disturbed or reversed at times.

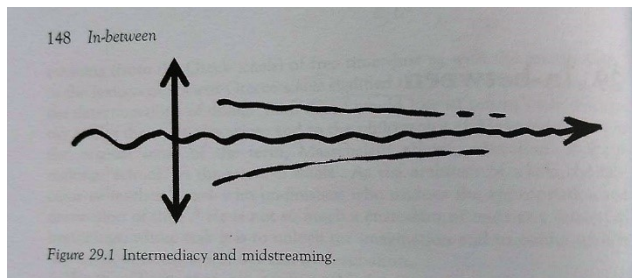


Figure 6 River - Ingold, 2015, p.148

orthogonal to their transverse connection.” (2011, p.14) Following this metaphor, Ingold seems to argue that the river is continuously moving in this *one* direction: an ‘orthogonal direction’ implies a 90° angles while a transverse connection ‘extends across something’. Hence, the transverse connection of the river banks can be conceptualized as a bridge while the river can be understood as flowing perpendicular to this bridge – hence, forever flowing in this *one* direction (Figure 6). Paradoxically, he further highlights this idea of continuous movement by explaining that life’s “impulse is not to reach a terminus but to keep going”, hauled “by the current as it flows through.” (Ingold, 2011) I find the previous statements problematic. If there is no terminus – nothing that pulls the flow in this *one* direction – why would the current forever run in ‘a direction orthogonal to’ the river’s bank ‘transverse connection’? Is Ingold somehow implying there is an invisible force dictating the movement or flow of the river? I honestly do not believe it is what he is implying but I am seriously questioning his choice of words and his neglect in exploring the multiple dynamics that, by their intra-action, form the river. I argue that Ingold’s conceptualization of life is great to emphasize its flowing, moving quality but lacks to account for the undeniable presence of counter-flows.

“Rather than flowing in a straight line, rivers meander, and even where the river bed is straight, the main current and deepest channel in the river bed alternate between opposite banks (Leopold 1994; Schwenk 1965). Rivers also present a whole range of other combined ‘linear and circular’ movements” (Riegner 1989: 117).” (Krause, 2013, p.181)

Hence, it is clear that a river – just as life – does not solely flow in one direction. The ‘movements’ referred to in the extract above can include, for instance, eddies, rapids, vortexes and hydraulics. Moreover, it can be observed that “water close to the riverbank flows upstream rather than downstream” (Krause, 2013, p.181) These concepts are only a few example of a river’s dynamic

currents. The river most likely has a general ‘flow direction’, I agree, but we can also find counter-flows that pushes against the main flow or form waves and vortexes. These blockages and tensions hold meaning. Flows and counter-flows need to be accounted for and in my understanding, the movement or flow of life encompasses both.

Other researchers have highlighted the importance of counter-flows in rivers and in life (White, 1996; Schwenk, 1965; Strang, 2005, Krause, 2013) and I here propose to quickly explore the work of Franz Krause on the Kemi River. In his article: *Rapids on the "Stream of Life": The Significance of Water Movement on the Kemi River*, he agrees with Ingold, asserting the river is a great metaphor to discuss life. He further points out that the river is frequently called “stream of life” and explains: “human associations of water with life arise not only from its characteristics as a substance in itself, but also from its particular movements through the environment.” (2013, p.174) In order to elaborate this idea, Krause explores the relationship between the Kemi River and the ‘riparian inhabitants’ who dwell in its surroundings. His research leads him to know that “in engaging with and explaining their relations with the Kemi, the inhabitants of its banks give most attention to the eddies and waves of the river’s rapids, rather than to the slower flowing pools.” (ibid, p.174-175) The rapids are known to be challenging to navigate and “stories of success and failure” (ibid, p.177) are recounted and remembered when discussing skills and abilities. Moreover,

“only the specific, swirling movement of water, most perceivable along rapids, is associated with a ‘stream of life’, not the water or the flow in general...With the concentrated experience of water movement along rapids comes a concentration of meanings associated with them” (ibid, p.182-183).

From this understanding, Krause argues that it is the perceptibility of the movement that makes it alive:

“substance of water in itself has little significance. A bucketful of water, once scooped from the rapids, holds rather different meanings even though the substance and its qualities remain the same... This captures the centrality of whirling rapids for the ‘stream of life’.” (ibid)

Krause’s argument can therefore be summarized in this way: rivers are reminiscent of life, especially by virtue of their movements through the environment and among these ‘movements’, rapids – known to be challenging, sometimes causing people to struggle or drown but also representing an opportunity to showcase one’s skills – are considered the most meaningful. The

concentration of meaning in rapids is explained by their concentration of perceptible movements which are in turn, reminiscent of how we experience being-in-the-world. Perceptible movements engage our senses and allow us to intra-act with our environments and other beings. Thus, Ingold's metaphor of the river appears incomplete when discussing the flow of life. I am in no way attempting to discredit Ingold's approach. I rather strive to build on Ingold's approach by bringing the counter-flows – that he himself acknowledges but avoids to conceptualize¹⁰ – to the forefront of my discussions, since as Krause, I believe they are imbued with a concentration of meaning (to which I return in the final section of my thesis) and hold the potential to provide fruitful insights into the ways knowledge is improvised and negotiated. Moreover, a counter-flow does *not* suggest an interruption of movement but rather a transformative intra-play of lines of becoming. In practice, a counter-flow can be experienced as a challenge, a failure, a misunderstanding, a lack of communication, a conflict, etc. Nonetheless, it would be a mistake to understand conflicts and failures as 'closures'. Conversely, I argue they should be understood as 'openings' since they carry with them a transformative potential through creative negotiation and improvisation.

Swimming

In attempting to enact this methodological approach, I embarked on a seventeen weeks' journey to Botswana where I lived with World Spine Care volunteers in Mahalapye from late August to late December 2015. In preparing for this endeavour I had been learning chiropractic work by shadowing one of the WSC volunteers over the summer at his clinic in Ottawa. I also spent an enormous amount of time dealing with authorities of both WSC and of Botswana's government to negotiate research permits, in addition to negotiating my research with my thesis and ethics committees of the University of Ottawa, all part of the learning process, as the next subsection will elucidate in detail. This section, for its part, is meant as an overview of how and where I spent my time in Botswana while the ways in which I engaged in those activities and with those places will be elaborated in the analysis chapters of this thesis. Let's only keep in mind that I

¹⁰ In *Being Alive*, Ingold mentions the concept of 'counter-flows' twice, but provides no definition nor analysis although, as shown in this quote, counter-flows appear to be as central as the flow itself is in his conceptualization of life: "It is in these flows and counter-flows, winding through or amidst without beginning or end, and not as connected entities bounded either from within or without, that living beings are instantiated in the world." (Ingold, 2011, p.85) Further, in his latest book *the life of lines*, discussing the movements of life he mentions that they "swirl in the in-between" (2015, p.111) Unfortunately, he does not provide tools to apprehend these swirls and counter-flows.

aspired to engage in-the-world with WSC volunteers as well as with the people (and other beings) living in the area surrounding the two WSC clinics in Botswana. This involved spending as much time as I could with them, as we were moving in our environment. I decided the best place to start was the WSC house, situated in the village of Mahalapye, Botswana (histories of Mahalapye, Shoshong and Botswana can be found in the following chapter).

Hence, for the timespan of my fieldwork, I lived with the clinic supervisor and the volunteers passing through. There were a total of three short-term volunteers (not counting the clinic supervisor) who stayed with us (the clinic supervisor and I) for periods spanning from two to eight weeks. I followed WSC volunteers to the clinics in the villages of Mahalapye and Shoshong where they worked, to a local gym where we attended aerobics classes, to the stores where we shopped, to the bars where we danced, to the Ministries' offices in Gaborone where we negotiated with the officials, and to many more places. At the clinics, I spent time 'shadowing' the volunteers during the treatments, helping them if I could by weighing and measuring the patients, handing them the lotion bottles or chatting away with the patients. In total (not that the number itself really matters), I attended and shadowed around 100 treatments. I also spent parts of my days in the reception area of the clinics, discussing with the two local healthcare assistants – and other interpreters when they were present – discussing about WSC and work but also gossiping about our weekends while eating fat cakes (magwinya in Setswana). I acquainted myself with WSC's documentation as well as with their appointments and research processes. I was sometimes asked to perform tasks such as helping patients' who spoke English to fill out the questionnaires, filing the patient's files at the end of the day, entering the day's new data in the computer or driving the car to the 'supply' office in order to (un)successfully refill our supply of soap and toilet paper. I also attended a seminar and workshop with the local physiotherapists, organized by WSC volunteers while I also organized a workshop myself, when six chiropractic students from Durban visited us for a week. We discussed my research project, but also explored WSC as a global charity providing care in countries around the world and discussed concepts such as 'culture' and 'tradition' and debated about what it meant to 'adapt and collaborate' in this context.

The clinics also served as a launching platform for my research; it provided me with opportunities to meet local health workers and other important actors involved with the clinics/hospital/Ministry of Health while some of the patients became good friends and guided me

towards an enhanced participation with the community. My participation at the local gym also led to the creation of partnerships with Batswana and I had the opportunity to get involved with an array of people and places. For instance, I was invited to accompany a friend to her church, where I participated in the Sunday services on multiple occasions. I also attended a wedding and was invited to join in different social activities. On top of the many local health workers I engaged with, I met with two prophets and two traditional doctors. The unfolding of my research also brought me to meet and discuss with Shoshong's chief, Mahalapye Hospital's superintendent, Shoshong biomedical clinic's matron as well as with the MOH Permanent Secretary.

I also spent quite some time adjusting to and exploring Botswana's environment, including the dry heat, the sand that seemed to like travelling up my nose and down my throat to choke me, the flat straight roads, the empty river beds as well as the magnificent rocky hills where the rocks sing¹¹. I went on weekend trips to different areas of Mahalapye and Shoshong villages and to surrounding villages, sometimes on my own, other times with WSC volunteers and/or Batswana friend(s). I spent an afternoon learning how to do beadwork with a local craftswoman I met at a local market in Gaborone, chatted with a group of women cooking on open fires in gigantic casseroles at a local festival, learned how to cook magwinya – my favorites – under the supervision of my thirteen years old neighbour, made tea with local plants gathered during an expedition to the hills with friends and spent several afternoons sitting in the backroom of a tailor shop, laughing and talking, sometimes watching in silence, amazed by the beautiful garments being created by my friend. I somehow ended up acting (literally 'acting') as an 'extra' along with some WSC volunteers and some local friends in the upcoming movie, entitled 'A United Kingdom', exploring the country's first President Seretse Khama love story with a white British woman, Ruth Williams. This historical movie is a British production and should be released in time for Botswana's 50th independence anniversary in September 2016. Additionally, I explored the city of Gaborone and the villages of Mahalapye and Shoshong by foot, bike, bus and car. I could continue this 'list' for a while but the goal is not to enumerate exhaustively everything I did and everyone I met during fieldwork. Rather, the idea is to give you a sense of the places and people I moved through and

¹¹ In Shoshong, there are hills made up of rocks that literally 'sing' or rather 'ring'. When you hit them with another rock, they 'ring', or 'resonate' at different frequencies, creating beautiful sounds. By hitting multiple rocks one can 'play music'. "Ringing rocks" are a rare phenomena and to the best of my knowledge, no conclusive explanation has been suggested. Shoshong's hills are "sacred" as they are host to "ancestral spirits". Permission from the *kgotla* (chief's office) is required in order to climb the hills.

with while I was in Botswana. I might add that I am still in contact with many of the people I met while doing fieldwork and I continue to learn from them.

Feeling the currents

The circumstances that led me to pursue research with WSC in Botswana are also illuminating and I believe it is important to expand on my involvement with WSC prior to my arrival in Botswana. Simultaneously, this exercise is driven by a wish to be transparent and reflexive about my own positioning. My engagements with WSC during the year prior to my departure informed and contributed to the ways in which I approached and experienced my time in Botswana and are constituents of my emplacement as a researcher. WSC was first introduced to me by Julie Laplante, my thesis supervisor, over the phone in early September 2014. One of WSC members had approached her, enquiring if she would consider getting involved with their organization in order to explore ways WSC could better adapt to the ‘culture’ where they implement their projects – more specifically how WSC could integrate traditional healers into their initiatives. Julie could not accept the offer but, recognizing the incredible opportunity this could be for a graduate student, decided to relay the suggestion to me. At the time, I was attending the last two classes of my Master of Arts program and was already working on a project proposal for my thesis. The logistics of this particular project were not unfolding as I had hoped and in the midst of these challenges, Julie’s offer to explore this new problematic was tempting and I agreed to meet with her contact to discuss it further.

This is how, in early September of 2014, I met with Dr. Outerbridge, the clinical director of WSC and was persuaded to take up the project as my master’s thesis. More specifically, I was to explore the improvisation and negotiation of knowledge in the context of the implementation of a new evidence-based care clinic in Kanyama, namely the Magu Project by WSC in Tanzania. WSC hoped that I could contribute to facilitate communication with local healers, especially given that their presence and engagement in the area where the clinic was to be built was indisputable. This project was to be officially launched in early 2015 and constituted an incredible opportunity to explore the improvisation and negotiation of knowledge as it happens at this early and unique stage of implementation. It was not only a captivating and motivating project, it simultaneously provided a tangible setting and ‘event’ to explore, as well as a network of people in Canada and in

Tanzania to facilitate the administrative procedures and logistic challenges I would surely have to face. As a master student, I felt this was a great opportunity to produce a focused and engaged research paper and I gleefully embarked on this rather intimidating journey. Unfortunately, a few months later (March 2015), just as I was finalizing the organization of my departure, WSC advised me that the Magu Project in Tanzania had fallen through. This was utterly unexpected since the project had been in development for about a year and everything seemed ready to go. Dr. Outerbridge and other members of WSC had travelled several times to Tanzania in order to set up all the details and the clinic was scheduled to open its doors in a few short weeks. The reasons for the project's downfall were never shared with me, but I was offered the option to do research in Botswana instead, on the site of their Pilot Project. I accepted and started to work on the modifications necessary to update my project proposal and engaged the procedures required to obtain the mandatory research permits from the government of Botswana.

During the period spanning from September 2014 to August 2015, I met multiple times with Dr. Outerbridge and talked via Go To Meeting (similar to Skype) – and later met – with Dr. Scott Haldeman, the founder of WSC. In September 2014, I accompanied Dr. Outerbridge to a Canadian Chiropractic Association meeting in Ottawa, where he performed a presentation about WSC and invited all the professionals in attendance to join WSC's fundraising efforts by means of the 'World Spine Day Challenge' (World Spine Day is on October 16th of each year). I was also invited to attend a Global Spine Care Initiative (GSCI) conference in Toronto in November of the same year. GSCI is an initiative of WSC that strives to develop and test a universal model of care for the management of musculoskeletal disorders. This model is to be implemented and tested in the WSC clinics around the world. I was invited to this meeting as a potential contributor to one of GSCI publications and I therefore actively participated in the discussions and debates that unfolded during the two day gathering. This particular meeting was hosted and sponsored by the Canadian Memorial Chiropractic College (CMCC) and members of both organizations celebrated the event at a fancy restaurant with a late-night diner after a long day of work. I therefore spent the night eating, drinking, talking and laughing with this group of accomplished professionals, university professors, heads of scientific research groups and doctors. I am, to this day, still involved with GSCI (I have, for instance, recently participated in their Delphi process¹²) and have

¹² "The Delphi technique is a widely used and accepted method for gathering data from respondents within their

participated to multiple meetings via Go To meeting. During this period (September 2014 - August 2015), my thesis supervisor Julie Laplante and I were also asked to review the content of the WSC website from an anthropological perspective and provided comments and suggestions. Engaging with WSC and GSCI as decisions were being made and negotiated at the ‘management’ level was definitely an eye-opening experience that brought insights into the ways organizations such as these thrive and are organized. Moreover, through these engagements and meetings, I had the pleasure to make acquaintances with most members of the WSC Executive, Clinical and Research Committees.

I additionally had to make my way through the WSC research approval process in which my project proposal was read, reviewed and eventually approved by the WSC Research Committee. This process turned out to be very instructive although lengthy and frustrating at times. It showcased some difficulties that can arise when different disciplines are brought together in the realm of research. Although my project proposal had previously been approved by University of Ottawa Office of Research Ethics and Integrity as well as by my thesis committee comprised of anthropology professors, the WSC Research Committee deemed my proposal “not well enough developed” asserting it showed “a lack of methodology essential for scientifically rigorous research endeavors”. Some of their critiques and questions, as exposed in an initial letter of refusal I received on December 30th 2014 from the WSC Vice-President on behalf of the Research Committee included the following:

“What are the deliverables or outcomes of your proposal? Are they limited to a series of impressions collected in an unsystematic way? ... What are the operational definitions? Dependant and independent variables are not described in this proposal ... What qualitative or quantitative software will be used? ... How does WSC know that you can engage in the world successfully and without bias? Perhaps the most important is without bias ... Will these perceptions be evaluated in any way and are the perceptions misperceptions? ... Would someone other than you come away with different perceptions? The likely answer would be ‘yes’.”

Their letter of refusal also argued that:

domain of expertise. The technique is designed as a group communication process which aims to achieve a convergence of opinion on a specific real-world issue...The Delphi technique is well suited as a method for consensus-building by using a series of questionnaires delivered using multiple iterations to collect data from a panel of selected subjects” (Hsu & Sandford, 2007)

“the conclusions reached by the WSC Research Committee are not due to a lack of understanding of qualitative or anthropologic research. The type of research you are considering, that is, interviewing members of the community where a WSC program is in place, is currently being conducted by a graduate student in Botswana.”

Their final verdict went as follows: “The decision from the WSC Committee is that your proposal is not well enough developed and ethical considerations required in any research where individuals are being interviewed and their responses analyzed has not been addressed”. They also recommended that I read the book *Research Methods in Anthropology Qualitative and Quantitative Approaches* by H. Russel Bernard first published in 1988 but more recently edited in 2006 and even provided an electronic copy for my convenience. I remember reading through this letter, wondering if the WSC Research Committee had genuinely read attentively through my project proposal. The most blatant misunderstanding was the assumption that the core of the research I was considering relied on “interviewing members of the community where WSC program is in place”. This was not the core of my methodology and nowhere did the word ‘interview’ appear in my project proposal. Since it is one of the most common approaches in doing research in the social sciences, it would most likely have been clearer if I had mentioned straightforwardly in my methodology that I did *not* plan on using interview. Yet, asserting that the core of my methodology relied on interviews was, for its part, an unfounded assumption. Other assumptions were made concerning the existence of dependant and independent variables, specific deliverables, the use of software, the reproducibility of the results and the ultimate goal of being objective and to avoid bias.

The possibility that valuable research could be initiated and successfully completed in a different manner was totally disregarded by the WSC Research Committee at this stage of our negotiations. They did not recognize the diversity of methodologies possible in anthropology, rather suggesting an approach that best suited their comfort zone. In the book WSC shared with me, the author, although discussing methodology in anthropology, clearly positions himself favorably to the scientific model of research and finds meaningful ways to adapt it to research in the social sciences. In his introduction, Bernard asserts:

“The power of social science, like that of the physical and biological sciences, comes from the same source: the scientific method in which ideas, based on hunches or on formal theories, are put forward, tested publicly, and replaced by ideas that produce better results.” (2006, p.17)

Furthermore, he introduces his chapter entitled *The Foundations of Social Research* as follows:

“This chapter is about the fundamental concepts of social research: variables, measurement, validity, reliability, cause and effect, and theory. When you finish this chapter, you should understand the crucial role of measurement in science and the mutually supportive roles of data and ideas in the development of theory. You should also have a new skill: You should be able to operationalize any complex human phenomenon... You should, in other words, be able to reduce any complex variable to a set of measurable traits” (ibid, p.28)

I do not argue that this way of doing anthropology is ‘wrong’, but I do argue that it is no way universal nor *the only* methodology for doing anthropology. Moreover, I do not believe the purpose of my project could have been accommodated by such positioning. On the contrary, I believe it would have been a strongly flawed and inappropriate starting point to my specific endeavour, as well as to WSC's own desire to involve an anthropologist with the objective of working with local healers. My purpose is to explore the improvisation and negotiation of knowledge and I therefore need to position myself in a way that allows for the recognition of diverse ways of knowing. I did not feel comfortable with a methodology that had ‘fundamental concepts’ and that focused on measurements, implying there is irrefutable truths to be uncovered and that there exists only one way to come to ‘know’. Conversely, “[a]nthropological knowledge is generally agreed to be experiential, context-specific, intersubjective and reflexive” (Lambert, 2006, p.2642). I felt an open-ended approach was required and my choice of methodology was not made randomly nor due to a lack of knowledge regarding the existence of the approach they proposed. Nonetheless, WSC seemed to have missed the point. Moreover, the ‘pressure’ anointed on researchers “to conform to a highly specified methodology for qualitative research” has previously been noted and criticisms have been brought forward asserting that “these [(highly specified methodologies)] sometimes contain misleading or incorrect recommendations” (Lambert, 2006, p.2641), which appears to be the case in my situation.

In their letter, the WSC Research Committee members further explained that it was their belief the lack of communication that allowed this situation to occur “seem[ed] to stem from a lack of knowledge on your [(my)] part about the requirements of working with NGO’s”. I evidently lacked knowledge on working with NGOs since this was my first experience of ‘working with’ one of them at this point in my academic and/or professional career, however I had experiences of living in Africa (2011) as well as had completed a 12 weeks’ internship program ‘working for’

(and therefore also working ‘with’, yet under very different circumstances) a local Indian NGO (2013). Albeit my minimal experiences, I do not believe my lack of experience working with NGOs can wholly explain the challenges the WSC Research Committee and I faced in negotiating my research proposal. Rather, similar challenges have also been encountered by other scholars aiming to engage qualitative research within the field of medicine and health:

“qualitative researchers in health are commonly forced to argue for the legitimacy of their approaches within the confines of an ‘evidence-based’ framework... [T]he drive towards evidence-based practice has led to increasing weight being placed on the rigour and verifiability of the methods used ... [T]here has been an analogous proliferation of guidelines for conducting, analysing, reporting and on appraising qualitative research.” (Lambert, 2006, p.2641)

Correspondingly, two ‘trends’ appear: “while its [(anthropology’s)] disciplinary practices and insights are in increasing demand within fields in which such ‘evidence’ is valued” – such as WSC seeking the expertise of anthropologists – they are “albeit judged by the terms of the dominant discipline (hence the demands for methodological systematisation)” – just as WSC pressured me to change my methodology in order to make it correspond to theirs (Lambert, 2006, p.2642). I am careful to classify disciplines following a hierarchy in which one can be considered ‘dominant’ over another but the argument remains: disciplines who anchor their legitimacy in evidence-based practices and guidelines appear to believe in the supremacy of their methods and have difficulty accepting that others can produce high quality and reliable evidence and/or results. Despite this position, some – as well as I – have argue that conversely, “anthropological research...can plainly produce evidence just as much as the next RCT¹³. The problem lies, rather, in the standards and criteria taken as authoritative in assessing admissibility and veracity of such evidence” (2641) a problematic I will explore further in chapter 4.

Nevertheless, despite their initial harsh critiques, WSC agreed to open-up a space for further discussion and negotiation which allowed communication to flow in-between in a more productive manner. In order to address their concerns and questions, I was asked to prepare a presentation in which I had to demonstrate and discuss a structured overview of my research goals, questions, methodology, methods of analysis, etc. The meeting – to which my thesis supervisor also participated – was hosted on Go To Meeting on January 20, 2015 and a question period

¹³ RCT = Randomized Clinical Trial. RCT is a research method that is believed in EBM to produce the highest quality of evidence. It is the ‘gold standard’ of EBM research. I will discuss this further in chapter 3.

followed my presentation. On January 26, 2015 I received an email advising me that the WSC Research Committee had granted me a ‘Conditional Pass’. Their main request was that I create and provide an exhaustive document addressing each and every one of their comments and questions included in the above-mentioned letter – document which I provided on February 5, 2015. On March 19, I received the news that the Magu Project had fallen through and was given further instructions on the steps to undertake in order to pursue my research in Botswana. There were more discussions and negotiation but I finally received the WSC Research Committee official approval on April 22 via email and received a signed letter on June 1, 2015. I was not required to perform any major modifications in my methodology although I had to develop an analysis plan, which turned out to be a useful tool. The approval of my project proposal by WSC felt like a great victory since I managed to do so without compromising my methodological choices. As Lambert argues, what still “remains to be seen” is “[w]hether EBM [or more specifically in this case whether WSC] ...[is] capable of encompassing research findings emerging from investigative activities rooted in fundamentally divergent epistemologies” (Lambert, 2006, p.2643). This thesis is an exciting opportunity to explore these tensions and possibilities further.

Finally, I also want to note that as these negotiations were going on, I was simultaneously performing shadowing with Dr. Outerbridge as he was treating patients at his private clinic located in Ottawa, Canada. I had the opportunity to shadow him on two different days and attended a total of fourteen treatments. Since I had little experience with the type of treatments WSC members were offering, this gave me the opportunity to get acquainted with some of the procedures and unfolding of appointments. Moreover, Dr. Outerbridge was planning to be in Botswana for a period of a few weeks during my fieldwork and my thesis supervisor and I agreed it could prove fruitful and enriching to shadow a WSC practitioner as he performed his treatments both in his environment at home and abroad.

Hence, even if my fieldwork in Botswana officially started in August 2015 for a period of seventeen weeks, I had been involved with WSC and GSCI, doing what I consider to be ‘fieldwork’, for eleven months prior to this date. All the above mentioned encounters contributed to my better understanding of WSC as a global charity as well as its bureaucracy, organization, scope of actions and interests. Additionally, this provided useful and meaningful insights to better grasp what ‘evidence-based’ research, guidelines and practices entails in this organization and how

its definition and application are being negotiated within these biomedical circles. I also learned a great deal on scientific research methodologies and requirements while negotiating my own project with the WSC Research Committee. Our ongoing negotiations provided me with knowledge that would follow me into the field and my experience in Botswana was in part shaped and guided by my prior experiences with WSC and GSCI. It soon became evident that some of my insights – especially regarding evidence-based practices - were misplaced (see chapter 3) while on the other hand, the counter-flows (or blockages) we had to face in working together also seemed to emerge in Botswana with different groups of actors involved in and around the two clinics in Shoshong and Mahalapye (see chapter 4).

Chapter 2

Anchors Aweigh

This chapter provides a framework to better understand what is happening in and around World Spine Care initiative in Botswana. I will start by providing an overview of the organizational structure of WSC and will discuss their official mission, goal and values as formulated in their website and official publications. By examining what is ‘said’ by WCS – or rather what WSC carefully chooses to advertise – ‘what is not said’ will concurrently emerge and my hope is that, by highlighting some of these discrepancies, the reader will be able to gain a greater understanding of the complicated machinery that is WSC. This will further be informed by a quick historical overview of the emergence, development and criticism of global health and humanitarian medicine; lines upon which WSC is clinging onto in order to legitimize and bring their model of care overseas. I will then continue by exploring the histories of Botswana and of the emergence of its national biomedical health infrastructure. These sections will provide helpful insights to better understand WSC’s initiative in Botswana as the last section will bring them into dialogue to quickly introduce the WSC Shoshong Pilot Project.

World Spine Care

In short, WSC is a global charity working to alleviate pain related to musculoskeletal conditions worldwide. As of yet, WSC has four operating clinics: one in Moca, Dominican Republic, one in Accra, Ghana and two in Botswana – one in Shoshong and one in Mahalapye. WSC is a highly structured organization and I chose to introduce WSC in a manner similar to how its members introduce it via the WSC website, published articles and social media pages. This will highlight the discourse they use to describe and advertise their organization while opening the way to bring forth some matters that were - purposefully or unknowingly – left in the dark by WSC. These insights are meaningful and will be helpful to understand what happens (or does not happen) in practice as WSC implements their projects. In the sub-sections that follow, I will start by presenting the ‘organizational structure’ of WSC to bring forth the different teams involved and will continue with an exploration of WSC’s initiatives through their goal, mission, vision and values, all the while providing additional comments and analysis as we move along.

Organizational Structure

WSC was founded in 2008 by Dr. Scott Haldeman, a neurologist and chiropractor internationally recognized for his work in spine care. WSC draws its originality from its interprofessional team made up of practitioners and researchers working in various biomedical fields, including neurosurgery, physical therapy, neurology, biology, epidemiology and chiropractic (and more recently tentatively anthropology). According to an article published by WSC members in 2015, WSC global charity was “brought into existence by a team of volunteers and institutions from six continents and multiple countries” (Haldeman et al., 2015, p.2305). The organizational structure of WSC is divided into teams, each one playing a specific role within the organization.

First are two Boards of Directors, one in the United States and one in Canada. Second is the Executive Committee, once again composed of American and Canadian individuals. Third is the Clinical Team, who’s main functions are to “establish evidence-based low-cost clinics in target communities; administer local relationships; direct and supervise clinics; and provide evidence-based care” (ibid). Fourth are the Clinical Volunteers that take on the role of clinic supervisors. They are the only ones that work directly at the clinic sites. Interestingly, albeit the interprofessional focus of WSC, the clinic supervisors must be either chiropractors or physiotherapists. In the latter case, they need to obtain extra qualifications in both image reading and manipulative therapy – skills WSC deems necessary to provide high quality spine care. Some short-term clinical volunteers (chiropractors or physiotherapists) are also invited to go and work at the clinics for periods ranging from a few weeks to a few months. Fifth we find the WSC Research Committee whose role is to:

“provide the infrastructure to collect and analyze data obtained from [the] clinics ...; attract universities willing to collaborate for research; attract volunteer graduate students ...; and act in a supervisory function with collaborating universities for graduate students from various academic fields.” (ibid)

Sixth, WSC has a Clinical and Scientific Advisory Board for which I was unable to find a clear definition. Lastly, there is the Promotional Team who has the responsibility to develop “a program to attract donors from around the world” (ibid, p.2306).



Figure 7 WSC's promotional poster



Figure 8 WSC's promotional poster

Being a not-for-profit organization, WSC greatly depends on donations to pursue their activities and all of its members, except one (the clinical director – the head of the WSC Clinical Team), are working voluntarily – meaning they do not receive a salary although they receive compensation for all of their expenses while traveling or attending meetings with WSC. The WSC Promotional Team uses various strategies in order to attract donors and it is those strategies that ultimately shape the public ‘image’ of WSC. In their effort, the main emphasis is put on the clinic supervisors and their work on the sites of the clinics. The WSC website is full of poignant and beautiful pictures of elderly women working in the fields, young men carrying heavy loads and younger women carrying their baby on their back and/or gathering firewood. These pictures are all depicting ‘underserved’, ‘developing’ countries and the WSC blog and Facebook page feature similar pictures along with some ‘poster ads’ promoting WSC campaigns (Figure 7 & 8). Multiple promotional videos along with aerial shots of the clinics and interviews with volunteers filmed at the clinic sites are also available on their Facebook page and YouTube channel (including one featuring me, ‘the anthropologist’). Those videos are carefully elaborated and sometimes partly ‘staged’ in order to provoke the viewers’/potential donors’ sense of sympathy. For instance, while in Botswana, one of the WSC volunteers voiced his desire to obtain footage of the kids singing a ‘traditional song’ and performing their daily prayer at school since he felt “*it would be very powerful*” as a promotional video. Yet, aside from the ten minutes spent each week animating an exercise program at the school, there is no direct linkage between WSC’s work in Botswana and kids singing and praying. Still it is chosen by WSC to promote their organization in the public sphere. Another example of the ‘staged’ feature of some of its promotional videos can be found in the account that follows. One morning, the WSC volunteers and I were at Shoshong clinic when one of the volunteers decided it would be great to capture an aerial video of the clinic – they had a drone at hand, which does not happen often. Before starting to film, the volunteer insisted on asking everyone around (patients or not) to gather outside the clinic to “*make it seem like we’re*

super busy” and when I asked if I could join the ‘crowd’, he answered in a half-serious half-playful tone that he’d rather not have me there since I am “*the wrong color*”.

Furthermore, WSC advertises their ‘cultural adaptability’¹⁴ and promote some of their published articles with carefully chosen phrases such as “Have you ever asked a patient if their pain felt like drums? Learn how we've had to adapt our clinical process to foreign cultures in our recently published article” (FB, 2015). Interestingly, if one takes the time to read the article in question, it becomes clear that the publicized ‘cultural adaptability’ aspect of their endeavours, is not the main focus of their concern. ‘Cultural adaptability’ constitutes only half a page of the nine page article and the ways in which WSC members and volunteers ‘adapt’ in practice are in no-way articulated in depth. Rather, the emphasis is put on the diversity of ‘expression of pain’ and the section concludes by asserting:

“These variations have a significant impact on treatment modifications, patient interactions, and evaluating patient outcomes. Understanding these variations, clinicians’ ‘cultural reference point’ and responding appropriately to the different expressions of pain are often as important as clinical skills.” (Haldeman et al., 2015, p.2308)

This quote, although showing a narrow perception of what ‘cultural adaptation’ entails, highlights interesting facets of WSC’s work on the ground. Unfortunately, how WSC practitioners come to ‘understand these variations’, gain the skills required to do so and more importantly, how they apply those skills in practice, is not addressed – in this article nor, to the best of my knowledge, in any other WSC’s or affiliate’s publications¹⁵.

Furthermore, in the effort to raise funds and gain legitimacy, WSC openly relies on the visibility and legitimacy brought to the organization by their relationships with two international figures who openly and publicly endorse WSC: Desmond Tutu and Elon Musk. Pictures and

¹⁴ I might here recall that it is as part of this endeavour that anthropologists (my thesis supervisor Julie and me) have been asked to get involved in WSC.

¹⁵ Hondras et al. (2015a), who engaged in research with WSC, have published a research paper discussing similar issues, still, the same comments apply. Here is an extract from the concluding section: “we believe we uncovered language representations for MSK disorders that can influence how healthcare practitioners interact with *Batswana* in everyday practice...Clear understanding of local perception for MSK conditions and associated symptoms has practical implications for healthcare providers” (note that MSK refers to musculoskeletal). The article focuses on how patients perceive and talk about their pain and although it is once again noted that understanding this should transform the healthcare professional’s practices and interaction with the patients, they provide no tools nor insights to understand how this could/would be done in practice.

citations from these two individuals figure on the ‘Home’ page of the WSC website: Archbishop Tutu, a well-known South African human rights activists, declares: “I support the goal of World Spine Care to enable effective spine care, one village at a time, for the hundreds of millions of people around the world who suffer from spinal problems and have no access to treatment” (cited in WSC, 2016). Elon Musk¹⁶, CEO of Tesla Motors, Inc. and Space Exploration Technologies for his part, asserts: “World Spine Care is initiating a program that should facilitate a transformational change in the understanding of Spine Care” (cited in *ibid.*). The ‘image’ WSC puts forth for the world to see emphasizes their work ‘on the ground’ and uses their partnerships with internationally renown figures to propel their funding efforts. Strictly situating their project within EBM is another strategy that will be highlighted in the ‘humanitarian section’ below and again in the following chapters.

Additionally, WSC has ‘liaison’ members that ensure collaboration with other organizations such as the World Health Organization (WHO), EuroSpine, Bone and Joint Decade (BJD), North American Spine Society, South Africa Division, International Society for the Study of Lumbar Spine and a chiropractic liaison in Botswana (WSC, 2016).

Hence, all teams combined, WSC has a total of approximately 51 members (not including the short term volunteers that I chose to leave out given their very brief involvement with WSC). Some of its members are part of more than one team, especially the members of its Executive Team. Out of these 51 members, around 43 (calculation based on the teams as laid out on the WSC website) are from North America or Europe. Furthermore, out of the 50 members, only three members (clinic supervisors) – or, one for each location (Botswana, Dominican Republic, Ghana) – work ‘on the ground’. The remaining 48 members work from their respective home countries. The majority of WSC decision-making processes and research efforts are coordinated from North America and Europe and are undertaken by members that have spent little to no time at the location of the WSC clinics. It is also noteworthy to mention that when WSC was recruiting members to start its global charity:

“Calls went out to spine surgical and nonsurgical medical communities, the physical therapy, nursing, chiropractic professions, orthopedic and neurosurgeons, radiologists, and primary care physicians, as well as yoga instructors and traditional healers. In addition, WSC called on non-clinical

¹⁶ Elon Musk also happens to be the nephew of Dr. Haldeman, founder of WSC.

participants at the board, administration, and fund-raising committees.” (Haldeman et al., 2015, p.2304)

Unfortunately, as of yet, there is no traditional healer working with WSC. The reasons why those calls have been rejected or unanswered remain nebulous and WSC doesn't seem to know how to palliate this situation. It is after all, with the goal of finding ways to collaborate with traditional healers that WSC sought the help of anthropologists – and that I ended up working with WSC as part of my master's thesis. This, however is obviously not its primary goal.

Goal, Mission, Vision and Values

WSC primary goal is to “fill the profound gap in the evidence-based treatment of musculoskeletal and especially spinal conditions found in under-serviced areas around the world” (WSC, 2016). To reduce this gap and thereby “reduce pain”, WSC focuses their efforts in underserved regions of the world where the medical system is perceived to be deficient:

“Populations in under-serviced areas of the world, especially rural populations, often have no access to conventional healthcare resources to care for spinal conditions. Most are currently treated by traditional healers or in hospitals where they receive pain/anti-inflammatory medication only. There are no comprehensive protocols or models of care available to enable health care workers to treat the spectrum of spinal conditions common in under-serviced areas of the world.” (WSC, 2016)

In light of this quote, it is apparent that the way WSC defines ‘service’ is incomplete: it does not, for instance, consider the possibility of local health workers attending complaints related to spinal conditions. Moreover, as we will see in chapter 4, it would be erroneous to assert that patients seeking help in hospitals – in the regions targeted by WSC – receive *only* pain/anti-inflammatory medication. In Mahalapye, for instance, the clinic is situated not even 30 meters away from a physiotherapy clinic where patients are being treated for back pain with manual therapy (among other therapies). What seems to be missing here, in the opinion of WSC, is rather their specific model of care, believed to be universal and a necessary good (although this universal model of care seems to also be missing for WSC since it is still under development, as will be explained below).

Following this line of thought, WSC's official mission is “to improve lives in underserved communities through sustainable, integrated, evidence based, spine care” and their vision depicts an ideal “world in which everyone has access to the highest quality health care possible” (WSC,

2016), a dream that became institutionalized in the 1950s within the WHO. To tackle these issues and fulfill their goals, WSC offers free comprehensive spine related care services (prevention, diagnosis and treatments) for the local populations at the sites of their different initiatives. These services are informed by six values that have been identified as essential by WSC: Sustainability, Evidence-based, Education, Research, Global, Sensitive. (WSC, 2016)

1. Sustainability: “To empower local governments and communities to assume control of their spine care programs in collaboration with WSC” (WSC, 2016).

Striving to achieve sustainability is, within WSC’s initiatives, undertaken by virtue of their integration into the pre-existing local health care infrastructure in the countries where they implement their projects. Hence, wherever WSC implements their projects, they partner with local Ministries of Health with whom they negotiate a Memorandum of Understanding (MOU) that states the responsibilities and engagements of each party. The aim is that, eventually, the local government will be able to run the clinics – with WSC’s ongoing ‘support’, but without the presence of its members on the ground. The WSC sustainability program encompasses six other components: health worker training, medical doctor training, train-the-trainer program, community education, academic scholarships and fellowships. In short, WSC offers evidence-based training for local health workers, assuming their prior training is insufficient, in hopes that those local health workers will in turn be able to pass on their ‘newly’ acquired skills and knowledge to others.

Similarly, WSC also offers funding for local youths who desire to study spine care abroad (physiotherapy, chiropractic or surgical spine fellow). The funding itself is secured through WSC but not provided by them. The funding is actually provided on one end by renowned universities who, by partnering with WSC, commit to covering the full tuition fees while on the other end, local governments (Botswana in this case) cover the students’ costs of travel and living expenses. In order to engage in this program, the students must agree to return to their home country and practice medicine at one of the WSC clinics for a minimum of five years following their graduation (Haldeman and al., 2015). As of now, only two students have earned this scholarship, both are from Botswana and both are currently undergoing chiropractic training. The first one attends Palmer College of Chiropractic in Iowa, USA while the other attends the CMCC in Toronto,

Canada (Haldemand and al., 2015). The hope is that once the students complete their five year' commitment, they will either opt to keep working at the WSC clinics or alternately that other newly trained practitioner who benefitted from the scholarship will take over, and so on. What will happen if there are no practitioners wishing to stay or bound by a contract to take over the clinics remains untold but one can guess the clinics would have to close.

2. Evidence-based: “The emphasis is on evidence-based integrative care” (WSC, 2016).

Dr. Outerbridge confidently asserts that WSC has developed “*the best evidence-based model existing to date*”. Interestingly, as noted earlier, the ‘model of care’ referred to here is still under development and, as of yet, no ‘WSC specific’ clinical guidelines are available to direct the volunteers in their work. The qualifications of the volunteers and the quality of the care they provide is taken for granted so long as they have obtained a chiropractic or physiotherapy (with additional training in image reading and manipulative therapy) certificate from a recognized university. Dr. Haldeman presses further that the treatments WSC offers are strictly based on a “*clinical scientific rationale*” (that equates to EBM), which he opposes to “*personal experience rationale*”. Healers and traditional doctors are believed to rely on personal experience rationale by virtue of the lack of scientific research and evidence to ‘prove’ the efficacy of their therapies.

Unfortunately, WSC does not provide any official nor specific definition of what they mean when they use the term ‘evidence-based’. Evidence-based (EB) is used as a qualifier by WSC, attached loosely to a panoply of other concepts such as: EB examination, EB treatment, EB education, EB management, EB care, EB guidelines, EB model, EB clinics, EB approaches (Haldeman and al., 2015; WSC, 2016). This tendency to add EB to qualify all sorts of practices has been noted and critiqued by other scholars and is thus not unique to WSC: “EBM’s principle...have also spread beyond medicine, so that we now have ‘evidence-based everything’” (Fowler, 1997 cited in Knaapen, 2014, p.823) The definition of ‘evidence-based (everything)’ seems to be taken for granted by WSC even though it relies on a series of abstractions, categories and ontologies that are not universal nor straight forward. The concept of EBM is of particular interest in the context of this thesis since it implies specific ways of knowing and I will engage a more in-depth discussion of its practices, dynamics and challenges as they emerge in and around

the WSC clinics in Botswana in chapter 3 and 4. It is also of particular interest because it is so often referred to by WSC members and volunteers.

One hint provided by WSC on their website to help us better understand ‘evidence-based (everything)’ pertains to WSC emphasis on the importance of using universal documentation in their clinics when discussing ‘evidence-based (everything)’. WSC explains that since each clinic also acts as a research site, this universal documentation allows for easy data analysis and comparison in order to gain knowledge and create ‘evidence’ (WSC, 2016). Once again, these arguments will be further scrutinized in chapters 3 and 4 where I will discuss the elaboration, evaluation and implementation of clinical practice guidelines – largely facilitated through WSC’s research efforts which rely greatly, as its members point out, on universal documentation, that is to say ‘evidence-based’ documentation or documentation that qualifies as ‘EB’ (thus EB appears to equate with ‘universal’ – transcending all contexts - almost ‘out-of-the-world’).

3. Education: “Educating the community and local health professionals” (WSC, 2016).

Education is here strongly linked to capacity building by WSC as they focus on patients’, communities’ and local health workers’ education. Patient education is mostly done through interactions during treatments where information is given with relation to prevention and management of musculoskeletal conditions. Community education is achieved through “Straighten Up”, an exercise program offered once a week in each clinic location and through scoliosis screenings at primary schools. The local health workers’ education for its part is tackled through presentations on spinal health, workshops, and conferences, namely through formal procurement of (in)formation. The latest of these workshops took place during my stay in Botswana, on World Spine Day 2015, in the hopes of educating local physiotherapists (see chapter 4 for more details). Moreover, WSC held an international conference in April 2016 where an array of experts on spine conditions gathered in Mahalapye, Botswana. It goes without saying that the scholarship program discussed earlier is also an integral part of WSC’s focus on education. Education is here envisioned, as alluded earlier, mostly as a one-way process: that is from WSC to the patients, to the local health workers, to the communities, but rarely the other way around, that is, from the patients to WSC, from the local health workers to WSC or from the community

to WSC¹⁷. This kind of collaboration is not deemed useful and education is understood in the strict sense of the term: to give (in)formation. A great part of my project is to understand how much could also be learned in the other direction, or what actually occurs in the middle as knowledge is negotiated and improvised.

4. Research: “Add to the body of knowledge of spine care” (WSC, 2016).

The research aspect of the WSC programs is developed in close partnership with Global Spine Care Initiative. As mentioned earlier, GSCI’s efforts are focused on the development of a universal model of care – resting on the development and implementation of clinical practice guidelines – for the management of musculoskeletal disorders. Its team comprises a “combination of leading health care scientists and specialists from all over the world” (GSCI, 2015). This multinational team is, as is the WSC team, in great majority (29 of 33 members) composed of North American and European specialists, with the exception of an Indian physiotherapist, an epidemiologist from Australia and two South Africans, namely an orthopaedic surgeon and a neurosurgeon. GSCI is currently undergoing the Phase 1 of their five phases plan:

“The goal of Phase 1 is to design a clear plan of action to complete the Global Spine Care Initiative. Phases 2-5 of the Initiative will implement the proposed models of care in 5 selected communities. The burden of disease of spinal disorders will be measured in these communities before and after implementation of the models of care to determine their effectiveness.” (GSCI, 2015)

These five communities will, if the project goes as planned, be host to WSC clinics. The hope is that, since the WSC clinics already act as research sites using universal documentation and outcome measures, the ‘testing’ phase of GSCI will be facilitated.

Aside from their partnership with GSCI, WSC also offers research opportunities for graduate students. Three students and myself are currently planning or doing research with/on WSC. Maria Hondras, a PhD student from Denmark is exploring the “[b]urden of musculoskeletal disorders among villagers in rural Botswana” through a focused ethnography. Hondras has already published two articles following her fieldwork (Hondras et al., 2015a; 2015b). For her part, Sophia da Silva is currently completing a Clinical Science Residency and is researching “[a] case-series of patients

¹⁷ What is currently learned from the patients by WSC is done in the form of data collection that implies little participation from the patients, data that will be further used to shape an ideal model of care. See also note 15.

with musculoskeletal conditions presenting to a World Spine Care Clinic in Moca, Dominican Republic”. Sophia was doing fieldwork in Dominican Republic in the Fall of 2015. Lastly, Mufudzi Chihambakwe a chiropractic student from Durban University in South Africa is developing a project on “[t]he perception of selected stakeholders of the integration of World Spine Care into the health care system of Botswana”. His project will, I believe, in many ways be connected to mine and I am excited to be able bring them into dialogue in the future, once they are both ‘finalized’.

5. Global: “Bring access to spine care, without barriers, to underserved communities around the world” (WSC, 2016).

WSC is global by virtue of their international reach. WSC’s ambition is, after all, to “create a world in which everyone has access to the highest quality spine care possible.” In order to provide access ‘to all, without barriers’, their services are always free of cost and available to all; patients do not need to be referred by a doctor to book an appointment with WSC¹⁸. As previously mentioned, WSC currently has four operating clinics: one in Moca, Dominican Republic, one in Accra, Ghana and two in Botswana. As I have explained in the previous chapter, there was a failed attempt to implement a clinic in Tanzania and according to the WSC website, there is a project in development in India. The same ‘core model’ (that does not actually yet exist) is said to be used in every location even though the environments in which the projects are implemented vary greatly. This suggests the need for negotiation and improvisation and WSC addresses these challenges through what they call ‘clinical cultural adaptation’ which I have quickly touched upon earlier and which I will explore further in the sub-section below.

6. Sensitive: “Sensitive to local customs and culture of the communities in which we operate” (WSC, 2016).

¹⁸ Referral is needed for patients to book appointments with other specialists working for the MOH – for instance the local physiotherapists in Mahalapye hospital. Hence, on one hand, this universal access to care appears to be beneficial overall, but on the other hand, it also brings in patients that have pain unrelated to WSC’s area of expertise, that is: spine care. Those patients could be referred to local specialists – to Mahalapye Hospital’s physiotherapists in the case of knee pain for instance – by WSC volunteers. Yet, to my knowledge, this never happened during my time in Botswana as WSC opted to treat those patients themselves, thus creating a clear overlap in the services offered by WSC and other local health workers. This overlap will be further discussed in chapters 3 and 4.

In WSC's latest published article, one can read:

“A core WSC philosophy is sensitivity to cultural and local customs [...]. Great care is taken to collaborate with the community and to listen and collaborate with the community leaders and existing health care workers and traditional healers.” (Haldeman & al., 2015, p.2308)

WSC continues on by stating statistics from WHO arguing there is around eighty times more traditional healers than there are biomedical doctors in Africa and “[t]herefore, collaboration between the two is necessary.” (ibid) Strangely enough, the concepts of, ‘sensitivity’, ‘cultural customs’, ‘collaboration’ and ‘traditional healers’ are not defined and nothing more is said on the subject, thus leaving the reader to wonder how this ‘great care’ is enacted in practice. This is in part, what I aim to attend to and why I have designed my own research using an open-ended methodology. This thesis will hopefully show ways forward.

Nevertheless, WSC does, as quoted earlier, list some of the challenges they have had to face in communicating with their patients, especially when it comes to expressions of pain:

“a patient’s experience of pain will be revealed in emotions and behaviors particular to their culture, personal history, and perceptions... Understanding these variations, clinicians’ “cultural reference point” and responding appropriately to the different expressions of pain are often as important as clinical skills.” (ibid)

This extract is of the utmost importance in the context of this research since it shows willingness from WSC members to step away from their own ‘cultural reference point’ (doing so in the case of WSC I argue, includes stepping away from EBM) – a movement we are also asked to perform as anthropologists in order to ‘adapt’ with the environment, people and particular context at hand. Unfortunately, I am compelled to point out once again that the resources available to the volunteers or the strategies put into actions in order to gain this understanding and develop those skills are left to our imagination.

Moreover, some of WSC's statements appear to contradict their willingness to listen to and collaborate with local health workers (including traditional doctors). For instance, as mentioned earlier, “*clinical scientific rationale and personal experience rationale*” are put in opposition and the priority is clearly given to the former (thus failing to consider their scientific viewpoint as a ‘cultural reference point’) – while, as we will see in chapter 3, WSC volunteers themselves appeal to their experience in their everyday practices and navigate a space in-between ‘science’ and

‘experience’. Furthermore, WSC explains their categorization of some communities as ‘under-serviced’ in part through the assertion that the population “often have no access to conventional healthcare resources to care for spinal conditions. Most are currently treated by traditional healers” (WSC, 2016). In other words, this quote clearly shows that what the healers are doing to help people’s struggle with pain is disregarded as services. Moreover, and even more blatantly, this extract from a blog entry on the WSC website shows the little legitimacy traditional doctors hold in their eyes, typically qualifying what healers do as ‘belief’ and thus stripping them of ‘knowledge’:

“I was gripped by the realities of healthcare in Africa. The succession of patients taking anti retroviral drugs reflected the extent of HIV across the continent, while the wearing of red and white loom-like waist bands signified the persistence of traditional belief systems.” (Brown, 2015 in WSC, 2016)

These examples suggest a derogative attitude towards traditional practices and seem to be somewhat contradictory to the statements quoted earlier arguing for the need to listen to and collaborate with local healers. Inconsistency emerges in WSC discourse about ‘cultural adaptation’ and it is my hope that exploring how this plays out in practices, as WSC is implementing their initiatives, will contribute to shed some light on these uncertainties. The next section is a brief account of the emergence, development and criticisms of humanitarian medicine. Exploring this concept will help to situate WSC within this global movement – and global health – and gain a clearer understanding of the way its programs operate.

Global Health and Humanitarian Medicine

Although WSC is officially described as a charity rather than a humanitarian organization, the two concepts are sometimes used interchangeably. It is also clear that both work on the same global health and ‘development’ platforms that have been in place since the middle of the twentieth century. As this section will highlight, WSC inserts itself, without a doubt, in the realm of humanitarian initiatives. Humanitarian medicine takes its roots in the 1800s. In 1864, the Geneva Conventions marked the birth of modern humanitarian rights with a focus on the importance to offer help and treatments to *all* war victims. (Brauman, 2009) Therefore, non-governmental organizations (NGOs) and the Red Cross in particular (who was then the main actor in international medical care) occupied a ‘neutral’ position in contexts of war with their mandate to help *all* victims, no matter which side they fought for. In late 1960s, the first major humanitarian medical

intervention took place during the Biafran War. The help provided was one of emergency aid (ibid). The second half of the 20th century also marked the emergence of multiple groups of actors in the field of international medical aid. For instance, the WHO was inaugurated in 1948 with the vision that all peoples shall attain “the highest possible level of health” (WHO, 1948, p.2) while Doctors Without Borders was created in 1971. Those organizations are two of the major international groups operating in the global health sector today. Aside from emergency aid, colonial medicine also contributed to the emergence of modern humanitarian medicine (Brauman, 2009): doctors were sent to care for the military and Europeans colonizers while some clinics were built to serve the community. Often times, those clinics were initiatives of missionaries and brought with them a form of ‘social medicine’ where health was associated with certain practices and social ‘behaviors’ while other practices were deemed intolerable (ibid).

Although emergency aid is still a major part of humanitarian medicine today, NGOs along with governmental political bodies, are now also implementing projects in ‘ordinary situations’ at ‘home’ as well as abroad. Those initiatives focus on dispensing care to rural communities, especially in Africa where biomedical care is otherwise, not available (ibid). This is where WSC attempts to insert itself. The main motivation driving WSC’s initiatives is the assumed lack of care available to treat musculoskeletal conditions in the communities where they implement their projects, and not a situation of war or crisis. In doing so, WSC evokes a ‘global health burden’ to reify the need for their services. It is in this line of thought that, in 1978, representatives from all WHO constituting countries met at the Alma Ata conference and set out a goal to: “give all peoples of the world a level of health that will allow them to lead a socially and economically productive life by the year 2000” (my translation, WHO, 1978 cited in Brauman, 2009, p.109). It was at this same conference that ‘traditional medicine’ became an official category and it was agreed that it should be included in global health initiatives.

To achieve this ambitious goal of providing health to all, efforts were concentrated on prevention and on the education of the population on the ‘good social practices’ that allow good health. The gratuity of care was also brought forth as a requisite by virtue of health being a fundamental human right (Brauman, 2009). These principles soon proved to be lacunar in practice – the cost encountered became too great for the NGOs and other organizations to absorb. Later in 1987, WHO and UNICEF came together around the Bamako Initiative and agreed on the new

objective of “raising the medical level in the primary health care system and providing the essential generic drugs.” (my translation, *ibid*, p.111) Furthermore, it was now believed that the patients should provide a financial contribution for the care and/or medicine received. This engendered an ethical debate asking how humanitarian medicine, specifically meant to help vulnerable population, can achieve its goals if this very vulnerable population has to pay for the help received? To many, this was unacceptable although this debate rightfully raised questions about the economical feasibility of humanitarian initiatives. The conclusion reached and solution proposed was that, “in the interests of overall efficiency, it is the responsibility of the public authorities to support and increase funding for health and not the responsibility of the people.” (my translation, *ibid*, p.115) Hence, humanitarian initiatives in the health sector started to rely on funding from – and partnerships with – local MOHs – to implement their programs. Again, we can recognize some of WSC’s features in this general description: WSC usually partners with local MOHs and relies on them for funding in order to provide care free of charge to all.

Moreover, we find that these medical humanitarian programs usually follow one of two directions. The first direction is said to be ‘vertical’ which encompasses programs that focus on one health sector – or on one specific ailment. As part of the second direction, that is horizontal, we find programs that offer general medical services (*ibid*). WSC’s programs could then be described as ‘vertical’ since they specialize in the management of musculoskeletal conditions only.

A tendency of NGOs to use ‘numbers’ to justify or evaluate their initiatives has also been noted. Researchers assert that “NGOs have become producers of figures whose function, beyond operational concerns is the inclusion on the political agenda of the problem described.” (my translation, *ibid*, p.84) Sometimes, figures prove to be a valuable tool to attract international coverage and help when an issue that has so far, been ignored. This is precisely what WSC puts forth when using figures and statistics regarding musculoskeletal conditions. WSC discusses the “burden of back pain” and the “global impact of spinal conditions” with the use of figures such as: “low back pain is the leading cause of disability; low back pain and neck pain affect 1 billion people worldwide; spinal pain contributes more to the global burden of disease (including death and disability) than: HIV, diabetes, malaria, stroke, Alzheimer’s disease, breast and lung cancer *combined*; over the course of a year, as much as 72% of the population worldwide will have a bout

of back pain; the prevalence of spinal pain is four times higher in developing countries” (WSC, 2016).

Humanitarian or charitable organizations are further defined as organizations that provide help, somewhat selflessly, ‘with no other objective than being useful’. This desire to be useful has contributed to the transition of humanitarian aid from an economy of demand, that is, based on the needs, towards an economy of supply, that is, based on the means available (Brauman, 2009). Some criticisms have emerged arguing that some NGO’s initiatives, although driven by good intentions, are obsolete and/or inappropriate to the context at hand. For instance, Livingston (2012), an anthropologist working in Botswana, summarizes the situation in this manner:

“Global public health has long been founded on an assumed developmental telos. The goal has been to mirror the epidemiological transition of Western Europe, Japan, the United States, and Canada. According to this telos, rates of infectious disease, malnutrition, and childbirth would all need to decrease through efforts guided by state and global initiatives, while life expectancy would increase... Most public-health activity in Africa during the course of the past century, animated by a range of competing interests, have developed within this epidemiological progress narrative” (p.34)

In other words, “it is commonly assumed that biomedical technologies, if equitably distributed, will dramatically improve the health and wellbeing of people everywhere.” (Lock & Nguyen, 2010, p.1) This developmental telos is, nonetheless, not as unequivocal as its supporters portray it to be. The objectivity and universal claim of biomedicine is challenged by those who argue that “biomedical knowledge and practice are culturally embedded, so that the effects of their global dissemination are by no means straightforward.” (ibid, p.54). Livingston elaborates on this line of thought and further adds:

“We have long known to be wary of progressive narratives. We know that development trajectories based on specific Western European and North American models do not fit actual economic, political, social, and infrastructural histories from Changsha to Lahore to Bujumbura. Therefore, models of epidemiological transition, which take ‘development’ as their temporal telos, are ill-suited to project or capture the changing burden of disease.” (2012, p.34)

The biomedical technologies of Global health are henceforth neither “autonomous entities”, “morally nor socially neutral” (Lock & Nguyen, 2010, p.1-11). Conversely, “their development and implementation are enmeshed with medical, social, and political interests” (ibid.). Needless to say, the emergence of humanitarian medicine through international governmental and non-governmental organizations such as the United Nations (UN), WHO, UNICEF, OXFAM and

Doctors Without Borders is embedded in this context and the supremacy of ‘science’ and therefore of EBM, is not questioned within this community. As a result, any actors who wish to partner with or obtain support from these organizations has to comply with the standards of EBM’s scientific efficacy – at least, in principle. (Lock and Nguyen, 2010).

WSC, inserting itself neatly in humanitarian medicine, is no exception. The home page of its website showcases that their initiatives are endorsed by the Bone and Joint Decade (BJD), a Global Alliance for Musculoskeletal Health (themselves endorsed by the UN and WHO (BJD, 2016) and other international NGOs such as The International Society for the Study of the Lumbar Spine, the World Federation of Chiropractic and International Society for the Advancement of Spine Surgery. Maintaining a good reputation among these organizations is crucial for WSC’s access to funding. In return, organizations that offer funding or sponsorship, also benefit from supporting organizations that are considered legitimate and that are already endorsed by other ‘high status’ organizations. Simultaneously, although benefitting from the endorsement of important initiatives such as BJD, WSC also needs to cater their mission, vision and services in a way that appeals to potential donors. Hence, WSC receives, among others, financial support from organizations such as the Skoll Foundation who “drives large-scale change by investing in, connecting and celebrating social entrepreneurs and innovators who help them solve the world’s most pressing problems” (Skoll, 2015), Palladian Health, who are “dedicated to...enhancing the clinical effectiveness and efficiency of caregivers, and, ultimately, improving the quality of people’s lives” (Palladian Health, 2016), DePuy Synthes Companies who provides funding to initiatives “that are related to disease states, conditions and treatments that are of relevance to DePuy Synthes Companies business” who focuses on “orthopaedic and neuro products and services” (DePuy Synthes, 2016).

Understanding how WSC’s allegiance to ‘science’ and EBM plays out in practice as its members and volunteers implement their initiative in Botswana is paramount to my endeavour. Succinctly, this brief overview of the emergence and development of humanitarian medicine sheds light on WSC’s existence as a global charity and reminds us that similar initiatives have been implemented repeatedly around the world, especially in the African continent since the end of the 18th century - Botswana being no exception. Through an exploration of Botswana’s histories, the section that follows will touch upon the massive attention Botswana received from foreign aid

after its independence and will briefly explain how this contributed to the emergence and development of Botswana's current biomedical infrastructures.

From Bechuanaland to Botswana

Although Botswana's territory, previously named Bechuanaland, has been bustling with life for millennium, the histories upon which I focus for the purpose of my thesis begin in 1816 when the first European missionaries settled in Bechuanaland (Sillery, 1974). Albeit incomplete, this brief account of Botswana's histories and of the relationships between Botswana and Europeans will nevertheless help inform the context and environment in which WSC is implementing their project. For instance, we will understand not only that the villages of Shoshong and Mahalapye are central locations to Botswana's histories but also that foreign aid has been integral to the country's rapid economic growth that has unfolded in the last decades. Moreover, this will allow us to trace the emergence and institutionalization of biomedicine in Botswana as well as explore some of the recent trajectories of traditional medicine during and following the colonial era. Botswana is situated on the Southern part of the African continent (Figure 9)¹⁹ and covers an area of land of 600 370 ² km which is, for reference, slightly larger than France. Most of the roads (Figure 10)²⁰ and towns (Figure 11)²¹ are clustered on the South African and Zimbabwean borders in the eastern part of the country, Mahalapye and Shoshong being no



Figure 9 Map of Africa with Botswana highlighted in green

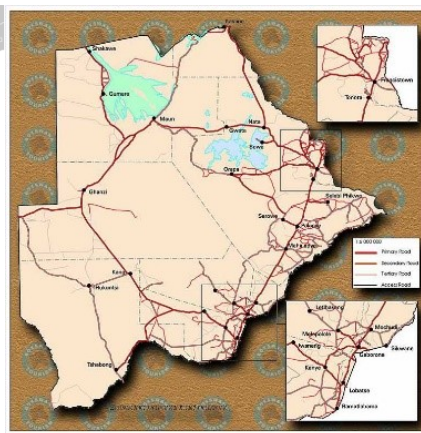


Figure 10 Agglomeration map of Botswana roads



Figure 11 Agglomeration map of Botswana Towns and Villages

¹⁹ Source: <http://www.countriesfactbook.com/botswana.asp>

²⁰ Source: http://www.botswanaturism.us/experience_botswana/road_network_map.html

²¹ Source: <http://www.japanun.top/botswana-on-world-map.html>

exception. It is hence where most of the histories that follow took place.

Bamangwato and the London Missionary Society

The inhabitants of Bechuanaland were clustered in different groups, the largest and most relevant to our histories being the Bamangwato – sometimes more simply referred to as Bangwato or even Ngwato (Sillery, 1974). The Bamangwato settled in the Shoshong area which stood as their capital (situated 40 km from today's Mahalapye – see Figure 11). As mentioned earlier, the first missionaries from the London Missionary Society (LMS), travelling from the British Colony located in South Africa, arrived in Bechuanaland in the early 1800s and built their first Mission church in 1816 in Dithakong (ibid). From there, the LMS missionaries travelled north through the main roads and eventually arrived in Shoshong in 1840. The village became the host of a LMS mission station, in 1862 (ibid). The King of the Bamangwato, and therefore the chief of Shoshong during that period, was Segkoma who is said to have been “a staunch upholder of ancient customs and beliefs” (ibid, p.34). That is to say, he did not welcome the missionaries who, for their part, “set out to combat and replace [these beliefs] with the truth as it had been revealed to them.” (ibid, p.18) The Shoshong LMS church was built in 1867-1868 and rapidly gained influence among the population. One of the LMS supporters and good friend to Missionary Mackenzie who was in charge of the station, was Khama, son of Segkoma, who replaced his father as chief of Shoshong and King of the Bamangwato in 1875.

“As soon as he made himself safe in his position, Khama proceeded energetically to reform the tribe. One of his first acts was to prohibit alcoholic drink. Then all the tradition rites and ceremonies offensive to his Christian conscience, such as initiation, rainmaking and so on, were discountenanced or abolished. More harmful practices like witchcraft, excessive game destruction and the maltreatment of subordinate people were also discouraged.” (ibid, p.71)

These new politics, especially since they were implemented by Khama, the legitimate and respected King of the Bamangwato, brought changes but one does not simply ‘abolish’ initiation rites or witchcraft (which are still being practiced to this day as we will see in chapter 4). Still, the seeds of this new found Christian conscience would continue to grow in the decades that followed and the dynamics between the faith healers and the traditional doctors and/or izangoma (diviners) remain tense and ambiguous to this day.

The 1800s also brought forth new actors in Bechuanaland. The Boers (South African Dutch colonizers) for example, who had embarked upon the ‘Great Trek’ – a migratory process that lasted around thirteen years - were entering the territory (ibid). The Boers had fled the Cape Colony in the aftermath of political changes that threatened their way of life. “Boers resented the establishment of political equality between black and white and the refusal of the British Government to maintain ‘proper relations between master and servant.’” (ibid, p.25). To the Boers, these ‘proper relations’ meant the subordination of the “brown and black men” whose only acceptable purposes were to act as “servants and labourers” (ibid, p.24). Hence, with the Boers’ arrival in Bechuanaland, the Bamangwato were threatened and with the hunters and miners also roaming the grounds, it proved difficult to handle the situation on their own. The Bamangwato, with the help of Mackenzie, turned to the British authorities in hopes of protection (ibid).

British Protectorate 1885 - 1966

The British Protectorate in Bechuanaland was officially implemented in 1885. In practice, the protectorate brought to Bechuanaland a “large police force to defend the border and, grudgingly, an administrative officer or two to keep in touch with the chiefs” (ibid, p.80) who retained their roles as community leaders. One can argue that:

“the Batswana and the British had different ideas about the protectorate, and that the British were acting more to safeguard their trading route and to prevent expansion by the Germans and Boers than from a desire to protect the Batswana people.” (Knight, 2014, p.39)

This trading route passed directly through Shoshong and was the main road linking South Africa (and Cape Town) to the Central and Northern African regions (ibid). Shoshong was the largest village in 1000 kilometer radius and one of the largest trading posts in Africa during the 1800s. However, the Bamangwato’s capital was moved from Shoshong to Serowe in 1902, and by 1911, the number of inhabitants in Shoshong was estimated at only 800, compared to 30 000 only a few decades earlier (ibid). Shoshong was no longer on the main trade route that now passed through the village of Mahalapye, 40 km east of Shoshong. Mahalapye developed steadily until it became one of Botswana’s center of activities. As a result, Shoshong village was put on the ‘back burner’ and evolved to be the small, rural village we know today, although its histories are still very much ‘alive’.

Political changes slowly made their appearance and in 1919, the Native Advisory Council was created. “[I]n the early ‘thirties the British Government felt compelled to consider a change in the method of governing Africans in the Protectorate” (Sillery, 1974, p.132). Consequently, the Native Administration Proclamation and the Native Tribunals Proclamation were adopted in 1934. In the meantime, Khama, chief of the Bamangwato died in 1923 and was succeeded by his son Sekgoma who passed away shortly after, leaving his young son Seretse Khama as legitimate heir to rule the Bamangwato (chiefship was hereditary) (ibid). Too young to rule, his uncle Tshekedi was appointed as regent. It is only in 1956, after spending five years in exile due to his controversial marriage to a white British woman (Ruth Williams Khama), that Seretse took his position as chief. (ibid) World War II marked a pivotal period for the Bechuanaland Protectorate and the negotiation towards independence soon surfaced. By 1960, “the Protectorate was endowed with a new constitution” and local political parties emerged shortly thereafter. “Seretse Khama...took a hand in the game [and in early] 1962 he announced the formation of a new party, the Bechuanaland Democratic Party (BDP).” (ibid, p.156) In 1963, the British granted Bechuanaland with a “form of self-government designed to lead naturally to independence.” (ibid, p.157) The BDP, with the support of the Bamangwato who still formed a great part of Bechuanaland’s population, won the elections that followed. In 1966 when independence was gained, Seretse Khama, who traced his origins to Sekgoma, King of the Bamangwato in Shoshong, became the first President of the Republic (ibid, p.158). It is in 1966 that the Bechuanaland Protectorate officially transformed into and took the name of the Republic of Botswana. The new governmental structure:

“consists of the President, the Vice-President, the Cabinet, a Parliament consisting of the President and the National Assembly, and a House of chiefs. The President holds an office during the lifetime of one Parliament, normally five years, and whenever Parliament is dissolved there must follow a presidential election.” (ibid, p.185)

Hence, Bechuanaland (today the Republic of Botswana) was under British Protectorate for over eighty years and historians do not hesitate to describe this period as “one of neglect”. (ibid, p.192) Nevertheless, Botswana has emerged as one of Africa’s most stable countries and it has ‘developed’ consistently in the decades following its independence so much so that Botswana is today considered a middle-income country (Livingston, 2012, p.16). The current and fourth President of the Republic of Botswana is Ian Khama, son of Seretse Khama and Ruth Williams Khama. Ian Khama, head of the BDP, has been in office since 2008.

Botswana

Botswana's capital was established in Gaborone while the country was divided into nine districts. Mahalapye and Shoshong are part of Botswana's Central District. Each district encompasses towns and villages that are further separated into wards.

“The dominant feature of each town is the *kgotla*. This is a crescent-shaped windbreak of poles, where men meet to discuss their affairs. Each village, and in the towns each ward, has its *kgotla*, the most important being the *kgotla* of the chief's own ward. It is here that the daily business of the tribe is carried out” (Sillery 1974,0 p.11-12)

Although this description dates from 1974, I found it accurate to describe the basic structure of Botswana's towns and villages. The *kgotla* is still an important meeting place and the *kgosi* (chiefs) remain very influential and respected men in the communities. The crescent-shaped windbreak of poles is still present in most *kgotla* (Figure 12) although more modern buildings and offices have been added to accommodate the chiefs and other employees.



Figure 12 Crescent-shaped *kgotla* structure in Mahalapye
*Taken by RP

Batswana, for its part, is the term used to talk about the people of Botswana. The prefix *Mo*(tswana) is used when referring to a single individual and the prefix *Ba*(tswana) is used when referring to multiple individuals. The prefixes have Bantu origins (Sillery, 1974) and I chose to use the prefixes since, in my experience, they are commonly used in Botswana. Some authors disagree and prefer to use the simple term ‘Tswana’ arguing it is the proper ‘modern’ orthography (ibid). I further found the prefixes are used to denote the singular or plural of other words in Setswana, the local language. For instance, *mosadi* means one woman and *basadi* means multiple women but I've never heard anyone say ‘sadi’ in reference to women. Again, when discussing God, Batswana use the term Modimo and the prefix *mo* is revealing since it implies that there is only *one* “*high God*”. Conversely, the word *Badimo* is sometimes used to refer to ancestral spirits,

of which there are many. Therefore, the prefixes are, in my opinion, useful, appropriate and needed for mutual understanding.

Botswana's rapid growth after its independence emerged from a dynamic combination including, among others: foreign aid, a stable democracy and a system of functioning social-welfare programs (Livingston, 2012; Sillery, 1974). "There can be few independent African countries that have so engaged benevolent international attention as Botswana" (Sillery, 1974, p.163). Research attributes the abundance of foreign aid in part by the discovery of copper, nickel and diamonds in Botswana's territory. Botswana soon became a serious contender in the international diamond market which further brought investors. Botswana's economy grew steadily under the watchful eye of its government who "[proved] remarkably adept, patient, and forward thinking in charting the course of development, stability and peace under challenging circumstances." (Livingston 2012, p.16) Moreover, "the poverty of the environment as a whole offered a challenge to the organizations concerned with under-developed countries" (Sillery 1974, p.164) This 'poor environment' refers mostly to the hostile dry heat and lack of water in different parts of the country. Foreign aid initiatives in Botswana exploded in the 1970s, coming from a variety of groups such as OXFAM, UNICEF, Standard Bank, the UK and USAID (ibid). Support was offered in the sectors of agriculture, health, business, infrastructures, communication, etc. This contributed to the general rise of the standard of living although "the gap between rich and poor has also grown steadily since independence" (Livingston, 2012, p17). Simultaneously, and according to the standards of 'development', Botswana gained its status as a middle-income country (ibid.).

Medicine in Botswana

Biomedicine

The institutionalisation and development of Botswana's public health care services were also in part made possible by foreign aid. Before the country's independence, most health services were offered by traditional doctors while biomedical care was almost inexistent (Sillery, 1974). Even during the period of Bechuanaland's Protectorate, the British provided close to no biomedical care to its officers or to the population. For instance, it is estimated that:

“in 1913-14 there was one whole-time medical officer, who was stationed at police headquarters at Gaborone, four part-time district surgeons who looked after government officials, and two hospital orderlies. There were no properly equipped hospitals.” (ibid, p.141)

Although the first LMS station was officially established in 1862 in Shoshong, it took another 100 years before a biomedical clinic opened its doors, in 1960 (Knight, 2014). In 1970, a few years after Botswana’s independence, the ratio of biomedical doctors per person was estimated at 1 to 24,000 and the ratio of nurses at 1 to 2,592 (Sillery, 1974). Most of them were clustered in the main towns where hospitals were, by then, in operation. Foreign aid and voluntary bodies, such as the Red Cross and OXFAM, played a major role in providing the resources necessary to put these infrastructures in place. Mahalapye district hospital, for instance, was paid for by the United Kingdom (ibid).

The prevalence and role of foreign aid in Botswana’s development trajectories can be better grasped in light of Botswana’s National Development Plan of 1970-75 which was “for the most part dependant on finance from international sources, foreign government [and] voluntary agencies.” (ibid, p.180). Through the 1970s, 1980s, and 1990s, biomedical care in Botswana grew continuously and became available to the majority of the population. Today, Botswana is offering a ‘universal care’ program which offers free care to all citizens (Livingston, 2012). All the major towns are now equipped with multiple clinics and at least one hospital while the smaller rural villages are served by at least one clinic. One of the WSC volunteers (unfortunately) required Shoshong clinic services during my stay in Botswana, one bright afternoon when she cut her wrist open while hiking down one of Shoshong’s many beautiful hills. We rushed to the clinic in a panic and the volunteer’s wound was cleaned and stitched up in no time – service was impeccable. Furthermore, the MOH is continuously updating and expanding their health infrastructure and services. Botswana is now training doctors locally and the first cohort will soon graduate. I had the opportunity to meet with some of those students at Mahalapye District Hospital, who are now working as medical officers in hospitals throughout the country in order to complete their training. Yet, although most nurses are Batswana, “for now, most specialists and many medical officers (“residents” in America terminology) tend to come from other parts of Africa and from Europe, Asia, and North America.” (ibid, p.18)

Traditional medicine

This brief account of Botswana medical services would not be complete without discussing traditional medicine which is widespread across Botswana. Traditional medicine and the work of local healers are dynamic and constantly being (re)invented. Still, they have not remained unregulated and the emergence and institutionalization of ‘biomedicine’ in Botswana did not happen in ‘parallel’ to traditional medicine. Rather, their lines of becoming are knotted and this section is meant to offer a better understanding of how Botswana’s development and reliance on foreign aid have contributed to the official (re)definition of traditional medicine in Botswana. This will be the focus of this section while the work and practices of Botswana healers including traditional doctors (or herbalists), izangoma (or diviners) and faith healers will be explored in chapter 4.

As soon as 1927 – that is, during the period of the British Protectorate – the Witchcraft Act was drafted and implemented in Bechuanaland. In short, any activity related to witchcraft was criminalized. Offenses include: “to practise witchcraft”, “to employ witch doctor”, “to profess to be a witch or wizard”, “to follow witch doctor’s advice”, and others (AGC, 2016). The Witchcraft Act is still in effect today as part of the Republic of Botswana’s Laws. Yet, although witchcraft has been illegal for almost a century, it has not been eradicated and, as many recent research attest, witchcraft is still sought and performed across Botswana (Gewald, 2001; Dahl, 2012; Burke, 2000). Furthermore, although ‘witchcraft’ as drafted in the Act encompasses a wide range of practices, not all traditional medical practices have been criminalized and those that remain, have rather been subject to an array of regulatory and institutionalization efforts deployed by Botswana’s government.

Hence, following the 1978 WHO Alma Ata conference that set out the goal to raise the level of health of all peoples, WHO focused its effort on prevention and education – education of the communities and also of health care workers, including traditional doctors. The Alma Ata Declaration stipulates that: “Primary health care [...] relies, at local and referral levels, on health workers, including physicians, nurses, midwives, auxiliaries and community workers as applicable, as well as traditional practitioners as needed” (WHO, 1978). More specifically, WHO intended to increase “training and research in traditional systems of medicine” (Haram, 1991,

p.167). Interestingly, but not surprisingly given Botswana's involvement with a multitude of foreign governments and agencies – all looking towards WHO, a branch of the United Nations, to guide their programs – Botswana was one of the first African countries to implement WHO recommendations and in this line of action, Botswana's MOH included policies regarding traditional medicine as part of their National Development Plan (NDP) of 1976-1981. The NDP states:

“Although not part of the modern health care system the traditional healer (ngaka) performs a significant role in Botswana especially in the rural areas...[T]he policy of the Ministry is to evaluate further the contribution of traditional healers to the health care system of the country and possibly then to seek ways of closer co-operation and consultation” (MOH, cited in Haram, 1991, p.168).

These efforts to evaluate and possibly integrate traditional healers into Botswana's public health care system were further reinforced as part of the NDP of 1979-1984: “The Ministry of Health will continue its policy of gradually strengthening links with traditional practitioners – both diviners/herbalists and faith healers” (MOH, cited in *ibid*). The MOH's approach is clearly and openly based on “evidence-based programming in disease prevention, treatment and care” (MOH, 2009, p.291) which permeates their approach to traditional medicine. For instance, the MOH more recently proposed, in the National Health Policy of 2011 as well as in their Long Term Vision program for 2016, to implement a greater legislation of traditional medicine practices and healers by pointing out that one of the “major challenge in the area of medicine regulation has been inadequate regulation and control of traditional medicines” (MOH, 2011). To rectify this situation, the MOH aspires to “provide the regulatory framework [...] for effective involvement of traditional practitioners” which will in turn “safeguard against malpractice and misconduct” (MOH, 2011). Traditional healers should be “registered and properly regulated” but should also, in turn, “be able to use facilities within or nearby modern clinics and hospitals” (Botswana Vision 2016 Council, 2011).

However, the information published by the MOH is unclear as to what they mean by a ‘proper regulation’ of traditional practitioners or how this regulation will be undertaken. It is only during my fieldwork that I learned of the existence of a United Herbalist Association (UHA) in Mahalapye. This association issues certificates to traditional doctors who successfully ‘pass’ their test (see chapter 4). Nonetheless, given its evidence-based approach and focus on ‘evaluation’, it is clear that MOH regulations are restricting, officially and legally, the practices of traditional

healers that do not conform to biomedicine's standards of efficacy, even though these standards might not be applicable to the healers' practices and knowledge. By inserting itself in the biomedical system already in place in Botswana, WSC is also inserting itself in these debates, negotiations and dynamics and one of my aims is to understand how this occurs (or not) in practice.

Shoshong - Pilot Project

Shoshong Project is WSC's Pilot Project. It was launched in 2011 to "spearhead the development of a viable model of care for spinal conditions in underserved regions around the world." (WSC, 2016) WSC asserts their project is dedicated to: the development of "sustainable capacity for effective spinal care", the implementation and evaluation of "spinal care screening, assessment, and treatment protocols, and the associated front-line health worker training program", to conduct research and lastly to integrate "into the health services provided by WSC such indigenous and alternative health care practices as are lawful in Botswana." (ibid) This desire to integrate local practices into WSC services is of utmost importance for this thesis and, again, how this happens (or not) in practice will be explored and discussed.

Further, Shoshong Project is divided in three components or 'levels of care'. Shoshong clinic acts as the "primary spine care clinic" and "serves as a center for the screening of serious pathology and the diagnosis and management of patients with spinal and musculoskeletal disorder." (ibid) A second clinic, in Mahalapye District Hospital, doubles up as a primary care clinic while also acting as a "secondary care clinic" that focuses on the "management of those patients who have been identified at the primary clinics to require more advanced care." (ibid) Finally, the patients requiring advanced or specialized care are transferred to the hospitals in Gaborone where

"volunteer spine surgeons and medical specialists including rheumatologists and neurologists affiliated with WSC are available to act as consultants to local specialists, provide education on the latest methods of managing complex spinal disorders and to assist on the management of more complex cases." (ibid)

To my understanding, this is a fair structural overview of the clinics in Shoshong and Mahalapye although I never met or heard of any WSC affiliates working at Gaborone hospital. Another nuance I would like to bring forward concerns the focus of WSC's activities on the ground. The Shoshong

clinic is advertised as WSC's main focus in Botswana – the project even bears its name – while little is said about the clinic in located in Mahalapye District Hospital. Shoshong is a rural village and corresponds neatly with WSC's focus on “under-serviced areas of the world, especially rural populations” (WSC, 2016) while Mahalapye, a much bigger village served by multiple clinics and a hospital, is kept somewhat in the shadow. In their latest published article addressing WSC's work as a charity, Shoshong clinic is taken as the prime example to show their work while their clinic in Mahalapye is mentioned only once, in brackets (Haldeman et al., 2015). Nonetheless, during my fieldwork, the proportion of workdays in Shoshong and Mahalapye was of three to two during the first weeks but the ratio was reversed shortly thereafter. The clinic in Mahalapye was attracting more patients and the workload proved challenging for the volunteers. It was therefore decided to reduce the days spent in Shoshong to two days a week while adding a third day of work in Mahalapye. The clinics in Shoshong and Mahalapye are currently operating under the supervision of Dr. Raquel Rojo Delgado, a trained physiotherapist and newly graduated chiropractor. She arrived in Botswana in July 2015 and spent the following weeks learning and working at the clinics with the previous clinic supervisor. She took full responsibility of the clinics at the beginning of August which more or less coincides with my arrival in Botswana later during that month.

In order to implement their project in Botswana, WSC works in tandem with Botswana's MOH. A MOU between the two parties was developed and signed in 2011 to “facilitate cooperation between the Participants for the establishment and/or development of Spine Care Centres in rural communities in Botswana” (WSC & MOH, 2011). In the MOU, the parties agreed on the project's goals, the division of financial contributions, the role and commitments specific to each of the actors as well as other administrative constraints (timetable, amendments, etc.). The role of WSC includes several components. Their team is responsible of the overall management of the clinics and for conducting on-going clinical research but is also responsible for participating to the fundraising efforts, for the recruitment and training of international volunteers and first line responders as well as for the evaluation of the project. In addition, and in accordance with their aim to integrate local practices to their services, it is explicitly written in the MOU that the project aims to “ensure interaction of [WSC] health professionals with local care providers and traditional healers to share knowledge on the assessment and management of spinal problems and harmonise treatment efforts” (ibid). Therefore, my thesis project is in accordance with the goals of WSC and those of Botswana's MOH and I hope to provide useful insights to help the Participants implement

their project as laid out in the MOU. I hope to do so from an anthropological perspective that makes dialogue in-between more lively and fruitful, in a way that moves beyond a formalized EBM model (constituent of WSC's cultural reference point) which is deemed too inflexible to suit this particular research endeavour.

Chapter 3

Art, Craft, Improvisation and Creativity

A Shadow on the Wall



*Figure 13 The WSC house in Mahalapye village *Taken by RP*

Thursday, September 3, 2015: the WSC house (Figure 13) – Mahalapye, 6:15 a.m.

I struggle to get out of bed as my alarm goes off for the 3rd time this morning. It is barely 6:00 a.m. and I am *not* a morning person. I stumble to my feet and sift through my dresser drawers, trying to decide what to wear, wondering how high the temperature will rise today. I select a pair of kakis and a light t-shirt, buckle up my sandals, quickly brush my hair and reluctantly exit my rather large bedroom, not quite ready to face other human beings. On my way to the kitchen, I trip over a basket full of clothing belonging to one of the volunteers which reminds me that we have a ‘maid’ who comes everyday to clean our house, our dishes and even do our laundry. I have never in my life had someone else being paid to clean after me. I feel slightly uneasy about my living arrangement but I try to push those feelings aside and remind myself that living with WSC volunteers is an integral and important part of my research. As I mumble a word of encouragement to myself, I enter the kitchen where a fresh pot of coffee is waiting for me. I gratefully pour myself a cup, add some organic rice milk we bought in the capital Gaborone and, as I take my first sip, start to assemble a bowl of oatmeal for breakfast. On the kitchen counter I find everything I need – from oats to dried fruits and nuts, cinnamon, shredded coconut, cocoa powder, honey, and even

maple syrup! I silently thank whoever took the time to make coffee and fetch all the ingredients from the pantry and set them out for the rest of us to enjoy. This facilitated our (mine anyway) transition from our beds, to the car and eventually to the clinic in Shoshong where WSC volunteers start treating patients at 8:00 a.m. I quickly walk out onto the veranda where Zulu meets me with his wagging tail and wet kisses. I pet and play with him for a minute or two before making sure the dogs (Zulu and Scooby – who is not very keen on human attention) have enough water and food for the day. I then move back into the kitchen, grab my breakfast and make my way across the ‘tunnel’ connecting the two main sections of the house – which used to be two separate houses – where I join my roommates and sole research participants (to date) in the living room area. The three of them are quietly working on their computers, sipping coffee. I sit on the couch and notice the three empty bowls on the table and their damp hair indicates that they had time to take a shower and I wonder in amazement how long they have been up. Noticing my dishevelled state, they remind me that we have to leave in ten minutes, so I finish my breakfast in a hurry, brush my teeth, stuff my notebook and my camera in my bag and make my way outside. We proceed to pack the back of the van with everyone’s bags and two baskets full with the clean white WSC uniforms that patients are asked to wear during treatments.

In the vehicle - From Mahalapye to Shoshong, 6:45 a.m.

At 6:45 a.m., we are ready to go! On our way out of Mahalapye, we pick up Boitumelo and Itumeleng, WSC’s two Health Care Assistants who are employed by the Ministry of Health. Their principal task is to manage the appointments’ schedule and to ‘administer’ the questionnaires to the patients, although they also act as interpreters/translators during treatments when needed. They



*Figure 14 View from the road between Mahalapye and Shoshong *Taken by RP*



Figure 15 A woman poses at her stand where she sells a variety of vegetables on the side of the road in Shoshong

are also in charge of answering phone calls and cleaning the clinics. Now that the whole team is on board, we resume our journey. The drive from Mahalapye to Shoshong is approximately 40 km of mostly straight roads, shared with cars, mini-buses, coach buses, donkey carts, bicycles and a variety of animals - cows, donkeys, goats, dogs. On multiple occasions, we are forced to come to a halt – either to let a group of cows cross the paved road or to avoid a goat suddenly running towards us. The road is bordered by

trees, distant hills and a few houses. Here and there, a crossroad appears and a sign announces that to the right there is a ‘proper bar’ while a little further, to the left, one might find a ‘healing church’. The sight is beautiful yet somewhat desolate. There are no contrasts of colors – everything is dull and brown. The trees are bare, the fields are empty and the hills resemble humongous piles of rocks (Figure 14)²². As we drive into Shoshong village, shops, houses and other buildings come into view. There is already a group of people waiting at the bus station while others are buying vegetables from the stands (Figure 15) on the sides of the road or are simply walking, halting to converse with other pedestrians before resuming their journey.

WSC Clinic – Shoshong, 7:30 a.m.

At around 7:30 a.m., we arrive at the WSC clinic in Shoshong where the volunteers work from two to three days a week²³. Today is my first visit to one of WSC clinics and I am apprehensive yet excited to start the day. We park beside the clinic (Figure 16) – which is in fact a mobile unit – and step out of the comfort of the air conditioned vehicle to find ourselves under the sun, in the already scorching dry heat raging outside. We retrieve our bags and the baskets from the van’s trunk and we climb the ramp leading up to the



Figure 16 The WSC clinic in Shoshong

²² Photo taken during wet season – hence the green trees

²³ The other days are spent at the WSC clinic in Mahalapye District Hospital

clinic's door. As I reach the top, I notice there is a beautiful tree (Figure 17) standing in front of me, on the right hand side of the clinic, blooming with magnificent bright yellow flowers and green 'beans' (non-edible) – a surprising sight given the time of year. Most trees are completely bare during the dry season ('winter') and start to flower only later during the wet season ('summer').²⁴ As I would soon realize, this tree is an important feature of Shoshong clinic's surroundings – on most days when we arrived, there would already be a few patients waiting at the clinic or making their way towards it. Some would bring chairs from the adjacent medical clinic²⁵ and sit under the tree while others preferred to stand or walk around (Figure 18). As I focus back on the task at hand, my gaze drifts from the tree back to the clinic and I step inside after the others.



Figure 17 Tree beside the WSC clinic in Shoshong

The first thing I notice is the smell. It smells clean – or rather it smells like cleaning products. Right away, Boitumelo and Itumeleng (WSC's local health care assistants) start to open the blinds, switch on the lights and the air conditioning (AC). The reception area is quite big, there is one long metal bench on each side of the room and a few chairs with garnet coloured cushions, while at the back, I see a desk with two 'office' chairs, a phone and a few pencils. I follow WSC volunteers into a corridor to our left and we walk straight to the end where we are faced with four



Figure 18 Waiting area in front of the WSC clinic. We can see the medical clinic in the background. *Taken by RP

closed doors. We enter the one in front of us and one of the WSC volunteers explains that this is the volunteers' office. There are two desks in the room. One is empty while the other one holds a computer, a filing tray and a printer. Over top of the printer, on the wall, hangs an X-Ray viewer while in the opposite corner across the room, there is a sink with running water, soap and a towel holder, holding a 'white' – now light brown – towel adorning a red 'WSC' embroidery. On the wall

²⁴ Dry sesason in Botswana span from April to October, while the wet season span from November to March

²⁵ The WSC clinic is installed in the vicinity of Shoshong medical clinic. The area is surrounded by a neat row of houses, where, I am told, the nurses and other clinic's staff live.

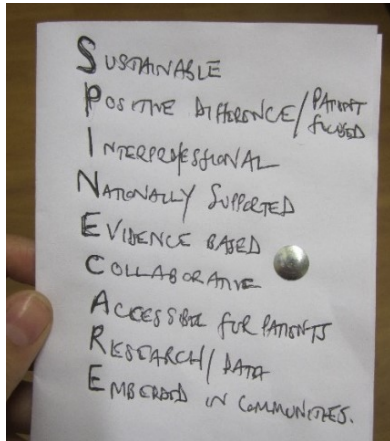


Figure 19 Spine Care Acrostic

beside the sink, there is a large white board and underneath it, I see a pinboard. I approach to explore the multiple papers and documents pinned to its surface and find an acrostic using ‘spinecare’ as an inspiration (Figure 19). Curious, I ask the volunteers what it is, who made it and its purpose. They approach to read it, yet they all assert they had yet noticed it and they conclude without excitement that it is most likely the work of a volunteer that came and left, a trace left behind anonymously. We continue our tour and I discover that the door to our left hides a fully equipped bathroom while the two remaining doors lead into the treatment rooms. I am impressed with how *modern* they look and I am surprised to find they are each equipped – as is the office – with their own AC machine. They each hold a desk, two chairs, a stool and a treatment table which is equipped with the technology necessary to mechanically adjust the height with the simple press of a pedal (Figure 20).

I hear voices coming from the reception area which means patients have started to arrive. I walk towards the voices and realize the configuration of the room has changed. The two long benches and most of the chairs have been moved outside under the tree where patients are now sitting, apparently waiting to be called inside. I also notice that all the windows are open, yet the AC is still blasting full-power and I feel very confused. I ask the volunteers about the situation and they answer that all the windows need to stay open to prevent risks of tuberculosis contagion, which is an airborne infection prevalent in the region. This is also why the patients have to wait outside until WSC volunteers are ready to treat them. As I look outside, feeling my temperature rise just thinking of how hot it must be sitting under the tree, I am surprised at the number of people (around 7?) already waiting – it is only 8:00 a.m. and there are only two patients scheduled every half hour.



Figure 20 Treatment room in the WSC clinic in Shoshong *Taken by RP

A shadow – Shoshong clinic, 8:15 a.m.

At 8:15 a.m., one of the WSC volunteers invites me to follow him into one of the treatment rooms where a patient, a woman, is already waiting, sitting on one of the chairs and wearing the white shorts and tank top uniform. This is my first ‘shadowing session’ in Botswana and I feel a little nervous. I am not sure where I should sit or what I should do. I opt for the stool in one of the corners of the room and I take out my black notebook and a pen. I sit down as the volunteer greets the patient and asks about Shoshong’s chief. She answers in a broken English that a new chief, Felix Kgamane, has been appointed last year and at the volunteer’s request, recites the phone number of the *kgotla* (the chief’s office) without hesitation. I take careful note of the number.

The patient moves with difficulty from the chair to the treatment table and complains of knee and shoulder pains. She indicates the location of her pain using ‘swooshing’ motion of her hands, starting at the knees and traveling down her legs and from the shoulder down her arms. The WSC volunteer asks her a few questions, some in English, some in Setswana which I can’t understand, and turns his attention to the patient’s file, most likely reviewing the treatments she previously received at the clinic - this is her third visit. Suddenly I hear a knock on the door and another woman enters the room. The WSC volunteer seems to know her and introduces her as the matron of the adjacent medical clinic. They talk for a few minutes and we briefly discuss my research before she leaves the room. The volunteer takes some notes and gets up to begin the treatment. He uses a technique he refers to as ‘manual therapy’ and, using his hands, fingers and sometimes his elbow, he probes, moves, presses and massages the patients shoulder, neck and upper back before moving on to examine her knees. As he proceeds, he is constantly communicating with the patient, asking for feedback on when/where the pain appears, if it is better or worse, etc. I scribble in my notebook, not sure what to write down, what is important or what I should be paying attention to. *I’m feeling awkward, just sitting here in the corner of the room watching.* The volunteer is now moving away from the table and gestures to the patient that she can put her clothes back on. He sits down, facing the wall and silently fills out the treatments sheet.

The patient, acknowledging my presence for the first time, asks me something in Setswana, pointing towards her clothes, which are hanging from the back of the chair behind her. My confusion must be showing on my face because she looks at me intently and points again, so I get

up, assuming she wants me to give her her clothes. I walk to the chair and try to sort through the multiple items of clothing. The patient starts to undress, revealing her enormous breasts, which she grabs with both her hands and laughs as she says in English, looking straight at me, “*very big breasts*”. I’m not sure if I should laugh with her or look away so I smile and look down as I hand over her black, lacy bra. She puts it on and I give her her white satin-like under-garment. I do the same with her thick brown dress which she puts on, still sitting on the treatment table. She takes her shorts off and points to her dirty, battered navy blue shoes. I slide them towards her and she bends over to slip them on. Only then does she get up with a grunt and adjust her under-garment and dress to cover her equally large buttocks. She gestures toward the chair where a book is still resting so I walk back to the chair, pick it up and give it to her. Without a word, she exits the room and starts to walk towards the reception area, followed by the WSC volunteer who just completed his paper work. I go along and the volunteer tells Boitumelo when to book the patient’s next appointment before quickly leaving, walking back towards the office. I follow him and take a big sip of water. It is 8:50 a.m.

At 8:55 a.m., I follow him again into the treatment room, where the next patient – the adjacent clinic’s matron – is sitting on the treatment table, wearing the white shorts and tank top uniform. I sit on the stool in the corner of the room and take out my black notebook and pen. The WSC volunteer sits at the desk and quickly glances over the patient’s file. He asks her a few questions and treats her using what I think is, again, ‘manual therapy’. He then tries to explain to her how to sit ‘properly’ and tells her that to avoid pain (I already forget where her pain is, I wasn’t paying attention, I guess?), she should bend forward at the hip joint while keeping her back very straight, then bend the knees until her buttocks touch the chair/table to find herself in a seated position. Although the patient speaks English fluently, I feel like she doesn’t understand a word of what he is saying. She tries nonetheless but fails to perform the movement correctly. Trying a new tactic, the volunteer gets up to show her with a demonstration instead of using only words. A few minutes pass by before she manages to reproduce the movement in a manner he deems acceptable but she finally succeeds and the volunteer walks back to his desk. He sits and starts to fill out the square dedicated to today’s treatment in the patient’s file. She changes back into her clothes – black shoes, a navy blue pencil skirt, a white blouse and a matching navy blue fitted jacket. She exits the room followed by the WSC volunteer and they both make their way to the reception area. It is 9:20 a.m.

At 9:30 a.m., the third patient arrives. She is an elderly woman. She is using a walking stick and is walking very very slowly in the corridor towards the treatment room, bent over almost in half. She is being closely followed by Boitumelo who picks an outfit for her (white shorts and tank top) and follows her into the room. A few minutes later, the WSC volunteer invites me to follow him. We walk from the office to the treatment room where we find the elderly woman sitting on the treatment table, her legs stretched out on the table in front of her. I sit on the stool in the corner and take out my notebook and pen. Boitumelo is still there, standing in the opposite side of the room, beside the desk, facing me. I wonder why she is still there, but when the volunteer starts to talk, he addresses Boitumelo instead of the patient and asks her to ask the patient how she is feeling. I understand she is here to help interpret and translate for the both of them. Boitumelo translates the volunteer's question in Setswana and the patient answers (in Setswana) while gesturing towards her knees and poking them repeatedly using three of her fingers, using one hand for each knee. When she is done, Boitumelo translates the answer in English and explains to the WSC volunteer that *'she says her knees are painful'*. I hear a knock on the door, and another WSC volunteers peers her head inside the room and asks if she can talk with the volunteer I am shadowing. He exits the room, leaving me alone with the patient and Boitumelo. *The elderly keeps talking and the interpreter tells me the patient says the pain in her knees is like lightning. She [Boitumelo] continues and explains [to me] that people here describe their pain in that way - fire in the chest, lighting in the knees, etc.* We sit in silence for a minute or two until the WSC volunteer comes back.

He walks toward the patient and grabs one of her leg. He places one hand on top of her knee, the other one underneath her calf and lifts her leg slightly. He bends her knee and pushes her leg towards her chest before straightening her knee, still lifting her leg. He repeats this movement a few times, always keeping the patient's leg moving in a flowing motion. When he is done, he carefully places the woman's leg back on the table and repeats the movements with her other leg. He then massages her knees and up the side of her thighs. Again, the volunteer doesn't address the patient directly but I notice that he glances up to look at her facial expression every few seconds and he seems to be adjusting the 'pressure' he is using in response to what he sees in her physical reactions – her body 'jerked' a few times as he was working on her knees. He also explains to me (in English) that this woman's condition is somewhat serious but that as long as she can function, they try to avoid *"unnecessary procedures"* like surgery. The treatment ends, Boitumelo leaves the

room and the volunteer fills out the patient's file while she dresses. He then exits the room as the elderly woman is still struggling to put on her dress and I follow him out. It is 10:10 a.m.

At 10:15 a.m. we are back in the treatment room. The patient is a woman who works as a teacher at one of the secondary schools. The volunteer takes some time to read the file and I just sit there, merely a shadow on the wall in the corner of the room. After a quick verbal exchange with the patient concerning her pain, the volunteer proceeds with the treatment, using once again 'manual therapy' and to my amusement (I feel a bit guilty for feeling amused but I literally cannot keep a straight face), the patient starts to shout "yoooooo, yoooooo, yoooooo". By 10:40 a.m. we are out of the room, once again walking towards the reception area and back to the office before stepping back into the treatment at 10:55 a.m. where yet another woman is waiting. We continue this dance around the clinic for a while longer and once all the patients have been treated by either one of the three volunteers working today, we retreat into the office to eat a quick lunch consisting of crackers, cheese, carrots and hard boiled eggs.

"Straighten Up" – 1 p.m.

By 1 p.m., two of the volunteers are standing outside in front of the clinic while upbeat music is blasting out the van's open door. The other volunteer is doing some paper work inside the clinic and I am standing on top of the stairs leading up to the clinic. The clinic supervisor is conducting the weekly "Straighten Up" program²⁶. Around 15 people are standing in a circle following her movements (Figure 21). She starts



Figure 21 "Straighten Up" program in Shoshong

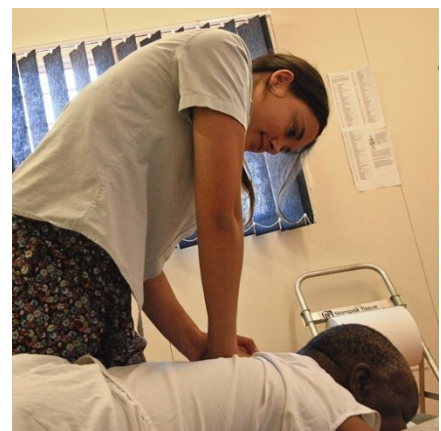
by stepping from side to side, swinging her arms in front of her before bringing them back to her sides, bending her elbows in sync with her side to side steps. Adding on to this, she instructs the participants to bend their knees with each step, bringing their heels close to their buttock. I take the opportunity to snap some pictures and videos, smiling as I hear some of the women making

²⁶ WSC offers the "Straighten Up" program once a week at each one of its clinics' location (Mahalapye and Shoshong) as well as at one of the local primary schools – Hence performing the program three times within a week.

comments and laughing at/with each other. The WSC volunteer continues to guide the participants' movement, using her own body as an example to follow. She spins 45° to the right and starts to walk, tracing a wide circle on the ground, all the while swinging her arms and bringing her heels up and back with each steps. I decide to join them and although I feel slightly uncomfortable and am struggling with the sand seeping in my sandals and between my toes, I am having fun and the group's energy feels light and playful. After another 15 minutes or so, the exercises stop and the group disperses slowly, some dancing as they go on their way while others stick around to get their 'attendance' sheet signed by one of the volunteers²⁷. One man is proud to show me that his sheet is almost full and that he hasn't missed a session in five weeks! Once everyone has left, we walk back into the clinic to grab our bags and, after turning off all the lights and AC machines, we lock the door carefully, turn off the water tap outside behind the clinic and huddle together in the van to go home after what seems like a long day at work.

Confusion, Questions and Learning to Learn

The narrative that precedes describes, to the best of my abilities, my experience as I moved with WSC volunteers on September 3, 2015. I wrote this account based on my field notes, both taken in 'real time' during the day in my black notebook and at the end of the day, when I reflected on everything that had happened, writing in my leather-bound journal. Some details were retrieved from pictures and from my memory. The purpose of recounting this episode is to help the reader understand what a 'day at the clinic' might look like but also to provide insight into my journey as an anthropologist, starting fieldwork in a previously unknown environment. As the days went by, I learned to engage in different ways while shadowing – not feeling like a mere shadow on the wall anymore. The sight of naked bodies became familiar and the anxiety they provoked in me melted away. I further developed a strong friendship with Boitumelo, simply referred to as 'the interpreter' in my notebook that day and my understanding of 'what is going on' at the clinics and in the treatment rooms (Figure 22)²⁸ transformed and increased



*Figure 22 WSC volunteer treating a patient at Shoshong clinic *Taken by RP*

²⁷ The attendance sheets have no other function than encouraging people to attend the program.

²⁸ Taken by RP during my time in Botswana but borrowed from the WSC website (WSC, 2016)

tremendously as I accumulated hour upon hour of intra-acting and living with WSC volunteers at the clinics, at home and around the villages of Mahalapye and Shoshong. I slowly started to learn Setswana – especially the vocabulary used in the clinic setting; that is, body parts, body positions and questions related to ‘pain’ – and what happens during treatments started to ‘make sense’ to me. After a few weeks, I had also started to learn how to read, interpret and fill out the patients’ file and knew the ‘drill’ for welcoming and examining new patients by heart. Nevertheless, this first day left me somewhat confused – but mostly curious and excited – and it acted as a platform from which I felt compelled to launch my research. A thousand questions were buzzing around in my head and body and I now had tangible material upon which I could draw to begin and help guide my exploration.

My first task was to understand how WSC volunteers’ knowledgeable practices emerge. I did so by attuning my attention and senses to their bodies and to the ways in which they used their senses as they worked and/or practiced different techniques at the WSC clinics and house. I also received treatments from the volunteers when I fell and hurt my shoulder while hiking as well as for an old leg injury that had been bothering me since we started going for daily jogs around our neighbourhood and attending aerobics classes at the gym. From these experiences, I was able to formulate some of my questions with words, referring to specific lived and observed moments. The discussions that followed would further provide insights to guide my attention and ongoing observations and these observations provided material to formulate new, more detailed questions. In this process, I learned to listen, a skill that might seem straightforward but proved to be much more complex than I had expected. It is one thing to hear words and decipher the meaning of the sentence they form, but it is another to listen and let the words travel with and advise you as you continue on your journey - especially when they seem to contradict what you’ve come to ‘know’. Without learning to listen, what I learned through other means would/could have been very different. The main breakthrough that came from listening to and learning with my participants pertains to my understanding of how evidence-based spine care is enacted in practice by WSC volunteers. I struggled to make sense of, on one side, my previous experiences with WSC – mainly during the research process approval –, what I knew about evidence-based medicine ‘in theory’ and on the other side, how WSC volunteers were conceptualizing and enacting evidence-based

spine care in their everyday practices. In a way, although it is clear that WSC had a limited understanding of legitimate anthropological methodologies, I eventually had to accept that I also had a limited and constricted understanding of evidence-based spine care (and of EBM in general). The section that follows explores the ways in which WSC volunteers' knowledge emerge in practice while the last section will, in light of the previous one, briefly problematize evidence-based medicine/spine care.

The artisan-craftsmen at work

As previously stated, the clinic supervisors and volunteers who practice at the clinics must be certified in either chiropractic or physiotherapy – and in the case of the latter, they need to undergo extra training in image reading and manipulative therapy. All the volunteers I learned with during my research were chiropractors (with one volunteer being both a chiropractor and a physiotherapist). When we discussed their practices, they often referred to their discipline(s) (chiropractic and/or physiotherapy) to provide explanations. Therefore, the section that follows explores ways of knowing pertaining more specifically to [evidence-based] chiropractic – and to a lesser extent, physiotherapy practices – as they are enacted by WSC volunteers in Shoshong and Mahalapye, Botswana. Although chiropractic and physiotherapy differ in some ways (e.g. there are no ‘manipulations’²⁹ in physiotherapy while it is a common technique used in chiropractic), they also use an array of techniques that are very similar (manual therapy) and the conditions they treat overlap. For instance, although chiropractic ‘traditionally’ focuses on spinal conditions, WSC volunteers in Botswana also dealt with other complaints such as ankle, wrist, or knee pains – ‘traditionally’ treated by physiotherapists. Hence, although I will be putting the emphasis on chiropractic in the section that follows, I ask that you keep in mind that the chiropractors (one of which is also a physiotherapist) with whom I learned and intra-acted, regularly use bodily techniques that are also used in physiotherapy. Moreover, and as we will see in the next chapter, WSC does not hesitate to claim expertise in physiotherapy by offering training and education to local health workers who are physiotherapists by training. This is, in part, justified by the originality of their model of care, that I remind the reader, is being elaborated by an array of

²⁹ ‘Manipulations’ are slight adjustments of the spine. This is what people usually refer to when explaining how chiropractors ‘crack’ their neck or back. The ‘cracking’ sound is actually caused by ‘gas’ being released.

professionals specializing in different branches of medicine – including chiropractic, physiotherapy, but also neurosurgery, epidemiology and more.

Chiropractic as an art and a craft

“Art and craft come from our experience as practitioners” (WSC volunteer)

While discussing their practice, WSC volunteers often-times referred to chiropractic as an art and/or a craft in order to evocate the ways in which they know and work. They explained the ‘art’ component of their practices through the use of creativity and intuition, inherent to their work. One argues that *“art is about being creative...You are dealing with something that is constantly changing and evolving. All treatments and patients are different”*. Another volunteer emphasized the intuitive component of their work by asserting that: *“If you feel that a patient will not respond to a type of treatment, just do something else”*. Following and trusting in your ‘feelings’ and hence your intuition further leads to making *“subjective decisions during treatments”*: *“If I’m treating a patient and I feel that the problem is coming from ‘there’ – even though it is not the most logical explanation – I treat it, and it works but I have no idea why”* (WSC volunteer).

The ‘craft’ component of chiropractic, my research participants explained, for its part relates to the skills required to perform treatments. WSC volunteers insisted on the tremendous amount of skills needed to treat patients efficaciously. Chiropractic demands a high level of dexterity. Everything is done ‘by hands’ or rather ‘by body’ since the whole



Figure 23 WSC volunteers practicing how to 'drop' in order to perform a specific manipulation on patients

body is often involved in the movements while performing manual therapy and manipulations. For instance, when carrying out a low-back spinal manipulation, the patient is lying sideways on the table and the practitioner needs to balance himself on one foot while holding the patient’s body in place (the patient needs to be completely relaxed), yet not using the patient to stabilize his own body. The practitioner then continues by ‘dropping’ his weight (literally the whole body) onto the patient’s body, at an angle perpendicular to the treatment table (Figure 23). As mentioned by one of the volunteers, every patient is different and everyone’s body is different and this calls for a

constant adaptation of the treatment and treatment's technique. Performing a manipulation on a 300 pound 5'8" woman versus on a frail 100 pound 5'3" elderly woman are two completely different experiences. A lot of women in Mahalapye and Shoshong are very 'thick' and adorn ample curves. This is not, the volunteers explain, the 'average' body shape they are used to working with and they often discussed the difficulties this situation engendered. Whenever they got to treat me, they would comment on how nice and easy it was to treat a 'normal' person. Being able to adjust from one body shape another takes an incredible amount of skill.

Further, when performing manual therapy – which resembles a massage – the practitioner needs to use the right amount of pressure in order to treat the intended tissues. One practitioner might be able to reach the 'deep' tissues using his thumbs while another will need to use his elbow – as was the case when WSC volunteers took turns treating my leg injury. The first volunteer tried to dig into the back of my thigh with his thumbs but my lack of reaction hinted he wasn't digging deep enough. At that point, another volunteer took over and using, again, his thumbs was able to bring me close to tears. Suggesting to the other volunteer that he should use his elbow to dig deeper, they switched again and this time, using his elbow, he was able to produce the same effect as the other had done using his thumbs only. Similarly, depending on the patient's body, the same 'tissue' will be located at different depth. Being able to produce the amount of pressure required is a skilled practice while recognizing and knowing when they are using the 'right' amount of pressure is another. There are no 'sensors' indicating when they have reached the desired spot and effect. In this sense, chiropractic requires an vast amount of corporeal skills and those skills, as I will discuss later, can only be gained with practice, hence "*from experience*" (WSC volunteer).

Synaesthesia

"I developed eyes in my hands with practice" (WSC volunteer)

In order to perform the skills required in chiropractic, practitioners need to attune their attention and senses to their patient's body as well as to their own – and perhaps most of all to what can occur 'in-between'. Synaesthesia is defined, as discussed in chapter 1, as the "[intra-communication] and overlap" of our senses (Abram, 1996, p.61). During one of the training sessions WSC volunteers carried out at the house, the volunteer who had the most experience was teaching a specific manipulation technique to the less experienced chiropractors. In order to

explain the technique, he insisted that the volunteers act as the ‘patient’ during his demonstrations, explaining that a visual and verbal account wasn’t enough and that he needed to “*show*” them rather than just explain. Knowing what the patient is feeling as you are treating them is important, he asserted. This is what the volunteer referred to as “*empathetic touch*”: being able to understand what the patient is experiencing allows the practitioner to recognize the patient’s reactions and movements which, in turn, guides his own movements during treatment.

Furthermore, the movements of the practitioner are guided through a “*creative visualization process*” (WSC volunteer). In this process, a “*visual template*” of the human body’s basic anatomy - assumed to be the same for every human – is overlaid with the patient’s individual variations, determined and felt by touch in order to create and visualize a ‘personalized’ template of the patient’s unique body. The treatment is then adjusted to the patient’s body through a constant feedback loop between the visual (both in ‘real-time’ and by memory using the basic anatomy visual template) and the felt (the felt as in the ‘touched’ but also the felt as leading to intuition). I believe this is the kind of exercise Ingold refers to when he asserts that “the fine-tuning or ‘sensory correction’ of the craftsman’s movement depends... on an intimate coupling of perception and action.” (2011, p.58) Another example of the intra-play or intra-communication of the senses – specifically of the visual and the touch - as experienced in chiropractic can be found in this statement: “*I can picture everything I am touching in my head. I can actually see it*” (WSC volunteer). The blending of the touched and the seen – “*I developed eyes in my hands*” (ibid.) – is an evocative synesthetic experience and it is “[this] multisensory coupling [that] establishes the dexterity and control that are the hallmarks of skilled practice.” (Ingold, 2001, 59) In this sense, chiropractic treatments are intra-active and dynamic movements experienced through synaesthesia, including both the patient’s and the practitioner’s bodies as well as the environment in which they find themselves (the equipment available, for instance).

Learning Skills through Creative Improvisation

The volunteers all pointed out that those abilities (skills, empathetic touch, creative visualization, etc.) can only be learned and mastered through practice and experience. Learning ‘by the book’ is an essential step, still it is learning from ‘doing’ in practice that allows one to become a skilled practitioner. “*It’s not a cookie-cutter approach*”; you need to constantly “*adjust*

from experience” and use *“improvisation during treatment”* (WSC volunteers). This conceptualization of chiropractic as an art and a craft – as proposed by WSC volunteers – strongly resonates with theories and approaches in craftsmanship (or workmanship), arts, creativity and improvisation.

Creativity has been defined in many disciplines as the “generation of first-time novelties through the rearrangement of elements” (Boden 1990, p.38 cited in Ingold, 2007, p.46). That is to say, creativity is equivalent to ‘innovation’ – the creation of something new through an assemblage of pre-existing pieces yet, arranged in a way that is in “radical disjuncture” (Hallam & Ingold, 2007, p.2) to the conventions (ibid; Ingold, 2007). What is innovative here is the *result* of the assemblage and following this perception, any endeavour that strives to reproduce a result through imitation cannot be creative (Hallam & Ingold, 2007). If one agrees with this statement, chiropractic – contrary to what WSC volunteers assert – is in no way creative for its treatments aim at reproducing specific results. Yet, this conceptualization of creativity has been challenged and anthropologists such as Hallam and Ingold propose an alternative understanding that allows to reconcile chiropractic with art as a creative practice. They argue:

“[to] read creativity as innovation is, if you will, to read it backwards, in terms of its results, instead of forwards, in terms of the movement that gave rise to them. This backwards reading, symptomatic of modernity, finds in creativity a power not so much of adjustment and response to the conditions of a world-in-formation as of liberation from constraints of a world that is already made.” (2007, p.2-3)

This constant “adjustment and response to the conditions of a world-in-formation” (ibid) resonates with the way WSC volunteers work, perpetually adjusting and improvising – *“You are dealing with something that is constantly changing and evolving. All treatments and patients are different”* (WSC volunteer). Creativity therefore, is intrinsic to the *process* and not to the finished product. To highlight this idea, Ingold draws a parallel with art, arguing that “the artist’s invention is inseparable from the progress of his work...the picture is not already created before the painting begins” (Ingold, 2007, p.47). However, this does not mean that the painter is not using specific techniques, previously learned and carefully reproduced in order to obtain a specific effect while accomplishing his work. Conversely,

“the perception that copying is inimical to the exercise of the creative imagination betrays an approach to creativity that sees in technique nothing more than the revelation or transcription of a design that already stands fully formed before the practitioner’s mind.” (Ingold, 2007, p.48)

Moving back to chiropractic, it is useful to grasp how WSC volunteers work in practice and in light of this understanding of creativity, the metaphor of chiropractic as an art comes to life. The same manipulation, even when repeated day after day using the same ‘model/technique’, remains creative:

“there is creativity even and especially in the maintenance of an established tradition [(chiropractic, for instance)] (Hallam & Ingold, p.5). Nothing that people ... do ever exactly repeats. No repeating system in the living world can be perfect, and it is precisely because imperfections in the system call for continual correction that all repetition involves improvisation. (ibid, p.10) Copying, or imitation, we argue, is not the simple, mechanical process of replication that it is often taken to be, of running off duplicates from a template, but entails a complex and ongoing alignment of observation of the model with action in the world. In this lies the work of improvisation.” (ibid, p.5)

In this way, we conclude, as proposed by Hallam and Ingold, that creativity can be better understood through “improvisation rather than innovation” (2007, p.3). I want to note that the concept of ‘improvised practices/knowledge’ had not been elaborated in this manner in my project proposal. My aim was to focus on how knowledge and practices were negotiated and therefore improvised more strictly when actors (mainly, WSC volunteers and local health workers) involved in and around the WSC clinics met and interacted. This is still part of my enquiry yet, what has rather emerged from fieldwork is that WSC volunteers’ practices are improvised in and of themselves, which adds an interesting depth to my research question(s). This clarification is important given my earlier claim that ‘the concepts used [in the analytical chapters] are the ones that emerged as useful and appropriate during and after my time in Botswana.’ (see chapter 1, p.10) I would not want the reader to mistake my use of ‘improvisation’ as it is elaborated in this chapter as a super-imposition of a pre-established analytical concept. The concept of improvisation was brought up and embraced by my research participants.

Further, Hallam and Ingold assert the use of improvisation³⁰ in a world-in-form is invariably relational (2007, p.3). To illustrate this statement, the authors turn to the example of a

³⁰ As shown in the above section, creativity implies improvisation and vice-versa. Hence, wherever I write ‘improvisation’, it could be replaced by and should be understood as ‘creative improvisation’.

pedestrian, making his way through the streets - as he makes his way through life. In order to move forward, the pedestrian:

“continually [has] to negotiate a path through what Michel de Certeau (1984: xviii-xix) would call tactical manoeuvrings – that is, through those improvisational adjustments of posture, pace and bearings by which one’s own movement is attuned on the one hand to that of companions with whom one wishes to keep abreast or in file, and on the other to strangers coming from different directions with whom one does not wish to collide” (ibid, p.7)

What better example to illustrate how WSC volunteers move through the clinics’ surroundings – whether in the Mahalapye Hospital or in the Shoshong clinic – negotiating their space and place with other health workers or, even more so illustrating how they attune and adjust their movements and bodies to those of their patients as they perform treatments. WSC volunteers’ and patients’ becomings, are “entangled and mutually responsive” (ibid).

Furthermore, and as I have hinted throughout this chapter, “improvisation is the way we work” (ibid, p.12) or, more explicitly: “the improvisational creativity of skilled practice is foundational to the way we work” (ibid, p.14). Hence – as WSC volunteers have explained, enacted and as I have witnessed in practice day after day at the WSC clinics – chiropractic is a skilled practice that requires health workers to be extremely attentive and to master the abilities to adjust and improvise at any given moment. Without these abilities, they could not be ‘skilled’ practitioners.

“A system that was strictly bound to the execution of a pre-composed script would be unable to respond [to continually changing environmental conditions] and would be thrown off course by the slightest deviation. This, indeed, is the typical predicament of the novice in any craft who had, of necessity, first to learn by the rules. Fluent response calls for a degree of precision in the coordination of perception and action that can only be achieved through practice. But it is this, rather than knowledge of the rules, that distinguishes the skilled practitioner from the novice. And in this, too, we find the essence of improvisation.” (ibid, p.12)

Moving into research exploring evidence-based medicine for an instant, it is noteworthy to point out that “the use of standardized protocols does not replace but *requires* the expertise of professionals ... situated judgements, local knowledge, and creativity” (Knaapen, 2014, p.830). There is thus, a certain gap that appears between ‘theory’ or formal principles and ‘practice’. Formal rules and principles are important – necessary even – but they are not sufficient. “One may learn the practice as a string of beads...but proficiency lies in being able to run operations together

– to move through them with the fluency of a dancer instead of executing each in a linear point-to-point connection” (Pye, 1968, p.14; see also Ingold, 2011).

This ability to flow while engaging in skilled practice can only be obtained with practice. I believe this is what WSC volunteers refer to when they argue, for instance and as mentioned earlier, that: “*Art and craft come from our experience as practitioners*”, or “*I developed eyes in in my hands with practice*”. Practice is key. This is also why, even though all of the WSC volunteers have obtained the same ‘official training’ on paper (chiropractic degree), the volunteers with more ‘hands-on’ experience were the ones organizing practice/training sessions for the less experienced volunteers. My own experience as a patient can also attest to what practice can bring to the delivery of skilled practices. I noticed a significant variance in the flow of the treatments while being treated – and while shadowing at the clinics – by practitioners who had gained different degrees of experience ‘in life’. The newly graduated chiropractors felt more hesitant and sometimes had to repeat a manoeuvre or a manipulation or had to reposition my, or their patient’s, body multiple times in order to ‘get it right’ while the practitioners that had accumulated many years of experience and practice could move through the treatments as smoothly as a professional dancer spiralling on the stage. Learning, in chiropractic, is done through doing – through observation, imitation and practice. In this process: “novices incorporate the movements and sensibilities of the masters into their own bodily comportment, only to surpass them in the development of their own personal style” (Ingold, 2007, p.50). Even when using the ‘same’ adjustment technique, there was always some variance in the ways WSC volunteers preferred to perform it – let it be the way they positioned their feet (in a lunge position, balancing on one foot or placing one of their knees on top of the patient’s knee to ‘kick’ as they ‘dropped’) or the placement of the patient’s arms, hands or legs as they lay on the table.

A last detour before discussing what this all means with regards to EBM is useful to bridge the way in-between craft and EBM. David Pye’s work on workmanship has influenced many thinkers beyond its original scope (design) and has inspired recent approaches to craft and creativity in the [social] sciences (Hallam & Ingold, 2007; Ingold 2011; Dornan & Nestel, 2013). For Pye, craftsmanship “means simply workmanship using any kind of technique or apparatus, in which the quality of the result is not predetermined, but depends on the judgement, dexterity and

care which the [craftsman] exercises as he works”³¹ (1968, p.4). Technique, for its part is defined as: “the knowledge which informs the activity of workmanship. It is what can be written about the methods of workmanship.” (ibid.) Hence, a craftsman is someone who applies in practice a previously learned technique, while skills³² (such as dexterity and judgment) are required in order to obtain the intended result. Hence, in the process of ‘crafting’ there is a goal to achieve. Similarly, an alternative, simpler definition describes craft as “the ability to perform in a useful way” (Becker, 1978, p.864). Following these definitions, a chiropractor who uses a specific adjustment technique during treatment while adapting it to ‘fit’ the particularities of his patient’s body using his synesthetic abilities to obtain the effect desired can be considered a craftsman. More specifically, chiropractic is a workmanship (or craftsmanship) of risk where the “the quality of the outcome depends at every moment on the exercise of care, judgement and dexterity” – or more generally on the exercise of skills (Pye, 1968 cited in Hallam & Ingold, 2007, p.12-13). Hence, Pye tells us, no matter how great the elaboration and description of the technique is on paper, the delivery of the technique in practice relies on the abilities of the craftsman: “a conductor can at least insist on his orchestra playing the right notes in the right order. But no conductor can make a bad orchestra play well.” (Pye, 1968, p.1) Yet, although intrinsically filled with uncertainty, “workmanship of risk are constantly devising ways to limit the risk by using such things as jigs and templates” or in our case ‘evidence’ as laid out in clinical guidelines and standards (ibid, p.5).

“[A] design [(or model of care for instance)] is in effect a statement of the ideal form of the thing to be made [(or the technique/treatment to be performed)], to which the workman will approximate in a greater or less degree...[in] all such cases the workman admits to the work an element of the unaccountable and unstudied: of improvisation.” (ibid., p.14)

This exercise of approximation renders the workman “an interpreter”. Pye argues, “interpreters are always necessary because instructions are always incomplete” (ibid, p.26; see also Hallam & Ingold, 2007, p.2). This resonates strongly with this excerpt formulated by one of WSC volunteers

³¹ Pye’s definition of workmanship: “the application of technique to making, by the exercise of care, judgement and dexterity.” (1968, p.22)

³² Pye refuses to use the word “skills” which he deems to be too broad since “it means something different in each kind of work.” He explains: “To a smith, dexterity is important but rarely in the extreme; but his judgement of certain matters, particularly heat, has to be brought to a pitch and decisiveness rarely needed or matched in woodworking trades, in which, however, more dexterity is often needed.” (1968, p.23) Nonetheless, I deem the concept of ‘skills’ to be pertinent and am using it specifically to encompass its broad spectrum of abilities – which allows me to draw a line in-between disparate kinds of work such as a chiropractic and beadwork or woodwork.

during one of our discussions: *“You have to be comfortable with uncertainty when dealing with low back pain. It’s always a guess based on clinical impressions.”* Juxtaposed to the workmanship of risk (*“uncertainty”*) is workmanship of certainty in which *“the result of every operation during production [(or treatment)] has been predetermined and is outside the control of the operative [(or practitioner)] once production [(or treatment)] starts”* (ibid, p.24). EBM’s formalized principles (or technique, as they are ‘written’) a priori strive for an ideal of workmanship of certainty – to minimize the ‘risks’ although workmanship of certainty is seldom found in practice (ibid.).

Exploring evidence-based spine care and medicine

The initial contrast that emerges between workmanship of risk (where the result is always uncertain) and workmanship of certainty (where the result is undoubtedly certain), when transposed to chiropractic, highlights the “discrepancy between formal principles and pragmatic practice” (Knaapen, 2014, p.832) or more precisely between the formal principles of evidence-based spine care and the pragmatic creative improvised practices found in the clinical settings. This discrepancy is not however, as many researchers taking up a more ‘radical’ stance (that I would characterize as one of ‘closure’) have argued, a dichotomy that can be explained by a pure and simple ‘opposition’. The ‘art versus science’ dichotomy that arose along with the emergence and institutionalization of EBM as biomedicine’s methodology of choice has, for the last two decades, dominated the debate with regards to the (ir)relevance of EBM’s formalized guidelines in practice. Some even characterize the two movements as distinct “paradigms” that “have, in fact, little in common” (Bensing, 2000, p.17).

“An image has been painted of an incompatible divide between on the one hand EBM advocates who promote ‘universal evidence’ as the basis for ‘rational medicine’, and on the other EBM opponents who preserve a more ‘humane medicine’ by promoting the ‘clinical art’” (Knaapen, 2014, p.824).

EBM is furthermore described as a paradigm that:

“[encourages] practitioners to shift the basis of clinical decision making away from “intuition, clinical experience, and pathophysiological rationale” towards “using the [medical] literature more effectively in guiding medical practice” (Evidence-Based Medicine Working, G, 1992, 2420 cited in Knaapen, 2014, p.823).

Along this line of thought, EBM has been described by some as a potentially harmful “massive standardization movement” (Timmermans and Epstein, 2010, p. 80 cited in Knaapen, 2014, p.825).

Thus, the fear is that medical practices become automated, dictated by a set of rules, guidelines and standards which leaves no room for “situated clinical expertise of physicians” (Knaapen, 2014, p.824) nor “individual skills” (Schlich, 2007). The ‘art vs science’ debate portrays both sides as irreconcilable.

Nonetheless, recent studies have started to problematize this dichotomy, pointing out that this radical positioning is in and of itself problematic and not representative of what is going on in practice (Knaapen, 2014; Carmel, 2013; Lambert, 2006). Goldenburg, for instance, argues that, contrary to what is actually ‘going on’, the “pragmatist allegiance” of EBM is left untold and does “not surface in the standard post-positivist critiques of how EBM construes ‘evidence’”. (2009, p.171). Simultaneously, the ‘uncertain’ features of EBM practices are also left in the dark in official EBM publications. In their article *Doctoring Uncertainty: Mastering Craft Knowledge*, Delamont and Atkinson explain how the medical education system is built in such way that requires “students to master the tacit, indeterminate skills and knowledge” while they are also pushed to “produce usable results... [and] learn to write public accounts of their investigations which omit the uncertainties, contingencies and personal craft skills.” (2001, p.88) Thus, just as EBM’s formalized guidelines are not found nor applicable ‘as is’ in practice given the transformative quality of the world or, its “fluid reality” (Hallam & Ingold, 2007, p.10), the strict exclusivity of EBM and of the ‘clinical art’ is *not* straightforward in practice either. Rather, biomedical health workers – WSC’s at least – seem to navigate a space in-between in their everyday work. One of the WSC volunteers voiced this dynamic evocatively when he explained: “*Clinical practice guidelines are a starting point but everyone agrees there is a lot more to it in life and a big part of what we do has no official evidence.*”³³ He further explains that there is, at one end of the spectrum, techniques that have been “proven” to be ineffective while others have been “proven” to be generally beneficial. Those constitute, as he phrased it, the ‘*definite do’s and the definite don’ts*’. This conception will further be problematized in chapter 4 but for now, what matters is that WSC practices are not restricted to EBM’s formal guidelines, nor are they enacted in an automated way. Everything between the ‘dos’ and don’ts’ and everything that has yet to be

³³ Here, clinical practice guidelines are imagined as ‘the starting point’. This is interesting given that in practice, it is ‘showing’ that rather appears as the ‘starting point’.

‘proven’ is in the realm of the possible and is left to the practitioners’ judgement and expertise. In other words, “*the evidence [found in clinical practice guidelines] guides the art*” (WSC volunteer).



Figure 24 EBM's hierarchy of evidence

Further, WSC volunteers pointed out that what has yet to be ‘proven’ (have strong ‘evidence’ for) in chiropractic, forms a considerable part of the discipline’s techniques. In EBM, what counts as ‘evidence’ is highly stratified and the hierarchy of evidence places randomized clinical trials (RCT) at its peak (in fact, just below systematic reviews – or rather, systematic reviews of the best evidence and therefore of RCTs whenever possible (Figure24)³⁴ (Knaapen, 2014, p.824)³⁵. Without delving into too much details, researchers agree that although “RCTs are effective for gathering even broadly applicable practical knowledge about some interventions, [they] fail in other contexts.” (Goldenberg, 2009, p.176) They are, for instance widely used for “large drug trials” (ibid.; see also Laplante, 2015). Conversely, RCT techniques such as “randomization and blinding are not always appropriate” (ibid.) and “not all diseases and clinical interventions have been or can be studied by an RCT.” (Lambert et al., 2006, p.2615)

In the case of chiropractic, WSC volunteers assert – given the corporeal aspect of the treatments – that it is nearly impossible to produce a valid RCT to ‘test’ treatment techniques such as manipulations. Discussing the challenges of using RCTs in research attending to spine care treatments and techniques, WSC volunteers argue that there are too many ‘variables’ that cannot be ‘controlled’. To perform a ‘valid’ RCT to test a manipulation technique, for instance, the manipulation would have to be performed in the exact same way every time (among other constraints) yet, as WSC volunteers explained, every patient and every treatment is different. Spine

³⁴ Source of Figure 24, as cited in Knaapen,2014, p.824: Evidence-Based Practice in the Health Sciences: Evidence-Based Nursing Tutorial. University of Illinois at Chicago, Information Services Department of the library of the Health Sciences-Chicago.

³⁵ For more details, see the following works on the prevalence of RCT in EBM’s hierarchies of knowledge: Lambert & al., 2006; Knaapen, 2014, Glodenburg, 2009; Laplante, 2015.

care is ill-suited for RCT testing since “*you can’t pin it down*”³⁶ (WSC volunteer). This results, as one of the WSC volunteers points out, in a lack of ‘official evidence’ to support what they do. Still, I here want to remind the reader that WSC, in partnership with GSCI, is hoping to develop its own universal model of care and is thus participating in the creation of those ‘official evidences’.

As part of GSCI’s (and WSC’s) initiative, this is done through a comprehensive review of the best systematic reviews available – hence situating their research methodologies on top of the pyramid. Yet, knowing that RCTs are difficult to achieve in the field of spine care, it is fair to suggest that the evidence reviewed as part of those systematic reviews (then reviewed by GSCI) are stemming from further down the pyramid. What I learned while engaging in this process with the GSCI team is that, when no evidence is available, GSCI relies on consensus to decide what counts as evidence³⁷. This is where the Delphi process mentioned in chapter 2 (see note 12) comes into play. Hence, it is interesting to note that albeit operating within evidence-based ‘formal principles’, the process through which GSCI and WSC are building their universal model of care is also filled with uncertainties. Still, WSC volunteers voiced that the obtainment of more ‘evidence’ is desirable and they asserted that researchers (including themselves) are constantly seeking ways to ‘reduce those uncertainties’ – by calling upon an interprofessional consensus for instance, that we can guess relies on those professionals’ experience, or ‘expert opinion’ as worded in the evidence pyramid. Other researchers are further working on finding ways to ‘control’ what cannot be controlled (for now)³⁸. This tendency is reminiscent of the craftsmen of risk who, although recognizing the uncertainty of his work always seek ways to reduce it. Nevertheless, and as I have mentioned earlier, there is a tendency to leave out uncertainties of evidence-based formalized guidelines, publications and ‘official discourse’ – which also the case for WSC and GSCI.

³⁶ Note that although RCTs can be better suited for some practices, it is never fully representative of what happens in-the-world. No laboratory can provide or re-create the exact conditions of the fluid reality of the world. (see Laplante, 2015)

³⁷ Still, it is important to note that the ‘initial model of care’ will further be tested to ‘evaluate’ its effectiveness within 5 communities (hence ‘in-the-world’) where the “burden of disease of spinal disorders will be measured” before and after the implementation of the model. While this is interesting way of constructing ‘evidence’, it also fits nicely within the epidemiological progress narrative critiqued by many – see Livingston, 2012 in chapter 2.

³⁸ Others, conversely, bring into question the legitimacy of the RCT as the ‘gold standard’ of EBM by commenting and asking: “This inability to perform an RCT is lamented because the methodology is presumed to be the gold standard. Yet, the authors ask, how can a design with limited applicability still be held as the gold standard in all treatment scenarios?” (Goldenburg, 2009, p.176) This question is, I believe, worth reflecting upon and exploring further although it is not the focus of this thesis.

Nonetheless, the clinical practice guidelines, stemming from the best sources of evidence possible (following EBM's hierarchy of evidence) are useful and important to guide the work of the WSC volunteers. However, as I have shown in this chapter, they are far from imposing the "massive standardization movement" predicted by some. Clinical practice guidelines, it would seem, do *not* constitute "automated recipes" (Knaapen, 2014, p.824) and their elaboration also appears to be imbued with uncertainties. EBM formal guidelines are the static *results* of yet again more or less flexible and improvised *processes*. Further, in light of this chapter, is it undeniable that the use of EBM formal guidelines in practice requires creative improvisation and the use of skills (learned through practice). Moreover, a "new" movement seems to be making its way and has been noted by researchers such as Knaapen who asserts that "those pragmatic and contextual considerations are increasingly revealed, formalized and reported in official tools, written rules and formal procedures." (2014, 832). This, along with the previous sections of this chapter, provide insights that help to (or at least start to) make sense of some of the contradictions that seem to appear within the WSC global charity. For instance, while WSC volunteers in Botswana openly discuss the craft components of their work, my experience with WSC prior to my arrival in Botswana hinted at a strict upholding of "*scientific rationale*" (as opposed to "*personal experience rationale*") as well as pointed to a need to uptake "scientifically rigorous research" in order to avoid "bias" and insure the replicability of the results. Additionally, as mentioned previously, similar blockages seemed to arise in Botswana with different groups of actors such as the physiotherapists and the traditional doctors. Understanding how these dynamic flows and counter-flows intra-act and emerge around the WSC clinics in Mahalapye and Shoshong will be the focus of the next chapter.

Chapter 4

Flow Obstructed: What can we learn from whirling rapids?

Far from consistent, World Spine Care's approach appears to shift depending on the context at hand and the actors involved. If, in their own practice, they manage to reconcile the 'art' and 'science' aspect of their work through 'craft'³⁹, WSC as a global charity seems to be 'officially' inextricably sticking to EBM's formal rules as a way to advocate the legitimacies of their practice and to justify the need for their interventions on a worldwide ('global') scale. The main objective of this chapter is hence to explore these flows and counter-flows using specific situations that emerged in Mahalapye and Shoshong, while suggesting potential ways to move forward. I will first recount the events that took place during and following World Spine Day (WSD) 2015 when WSC volunteers offered and delivered a one-day seminar and workshop to the Mahalapye Hospital's physiotherapists. This will be followed by an exploration of healing in Botswana. I will introduce the work of different healers (traditional doctors, izangoma, faith healers, biomedical health workers) and highlight their entanglement. Through this process, the assumed universality of biomedicine and bodies will be challenged.

What will emerge from this analysis is that, on one hand, WSC's choices to uphold EBM's formal rules when interacting with Botswana health workers hinders their capacity (or willingness) to recognize the 'skills' acquired by these practitioners while, on the other hand, doing so would paradoxically provide a path to "ensure interaction ... with local care providers and traditional healers to share knowledge on the assessment and management of spinal problems and harmonise treatment efforts" (WSC & MOH, 2011) and furthermore increase their "sensitivity to cultural and local customs" (Haldeman & al., 2015, p.2308), goals brought forth by WSC itself. I argue this is especially important in the context of the implementation of a humanitarian initiative like that of WSC's in Botswana. Moreover, I remind the readers that this is precisely what motivated WSC to seek the help of an anthropologist as part of their project, as it has become the core thesis I am unfolding.

³⁹ The 'craft' alternative to the 'art vs, science' debate, albeit in a different context and using a slightly different conceptualization, has also been suggested by others, such as Carmel (2013)

World Spine Day 2015 (in)formation

On World Spine Day (WSD) 2015 (16th October), WSC proudly rallied their efforts to help alleviate the “global health burden that is represented by spinal disorders” (WSC, 2015b). WSC encouraged chiropractors from all over the world to “take the ‘Work a Day for WSC’ Challenge” (ibid.). By donating the profit of their day’s work to WSC and therefore helping WSC to achieve their goals, chiropractors would – as advocated in the event’s promotional video - contribute to change people’s lives. The message goes as follow: since WSC works in underdeveloped countries, “the results they [WSC volunteers] have, are more than just relieving back pain, the results they have change people’s lives for their survival.⁴⁰” (WSC, 2015b)⁴¹

In Botswana, WSC’s actions to celebrate WSD took the form of a one-day seminar and workshop, held at the Mahalapye District Hospital by one of the WSC volunteers. This particular WSC volunteer came to Botswana specifically to deliver this formation (while she also worked at the clinics during her stay), for which she received financial support from CMCC. Invitations to the seminar were sent out to the hospital’s medical officers, doctors and nurses while the main targets were the physiotherapists operating in Mahalapye, both from the hospital and private clinics. The seminar took place between 9:30 a.m. and 1 p.m. and in total, seven participants (two nurses, four physiotherapists from the hospital and one from a private clinic) attended the presentation. The workshop, for its part, was held conjointly by two of the WSC volunteers and took place in the afternoon from 2 p.m. to 4 p.m. Participation to the workshop was for the physiotherapists exclusively. The physiotherapists in attendance at the workshop included the Head of the Hospital Department (Motswana) along with 2 of her colleagues/employees (1 Motswana and 1 foreigner who is married to a Motswana) and 1 physiotherapist from a private clinic (Zimbabwean).

The purpose of WSC’s seminar and workshop, in accordance with WSD’s official goal to “[r]aise awareness about spinal health and spine disorders within the interdisciplinary health care

⁴⁰ Note that ‘survival’ is here seems to solely be associated with ‘biological life’, in opposition to ‘political life’. Fassin, in *Ethics of survival* problematizes and challenges this dichotomous perception of survival and, drawing on Derrida, suggests an alternative understanding of survival that explores “life in its multiple forms”. (Fassin, 2010)

⁴¹ Watch their promotional video for the event here: <http://www.worldspinecare.org/take-the-work-a-day-for-world-spine-care-challenge/>

community” (WSD, 2015), was to “*provide a simple, evidence-based approach to the diagnosis and management of low back pain/disorders (LBP/LBD)*” to the health professionals of Mahalapye Hospital. The main objective was thus turned towards education through the ‘delivery’ of (in)formation – rather than, for example, the ‘sharing’ of (in)formation – suggesting the local physiotherapists and other Hospital staff lacked a “simple, evidence-based approach” to manage these conditions. The training’s secondary aims, as presented during the seminar, included: “*to promote inter-professional collaboration in the management of LBP patients*” and “*to provide healthcare professionals with material and skills to further their understanding of LBP and improve patient care*”.

The seminar kicked off with a quick introduction to WSC global charity, followed by the projection of one of WSC’s promotional videos, again emphasizing the ‘survival’ aspect of their work: “For most people in the world, it’s not about performance, it’s not about relief, it’s about SURVIVAL”⁴² (WSC, 2015a) The course material for the seminar was further divided into six sections, each addressing a different set of information and/or procedures: 1. Low Back Pain, 2. Etiology and History, 3. Physical Examination, 4. Working Diagnosis/Diagnosis, 5. Management & Prognosis, 6. Take Home Points. Being newly introduced to this clinical vocabulary and having no specific training in chiropractic nor physiotherapy, I had some difficulties understanding the scientific meaning of everything that was discussed. Nonetheless, the intra-actions between the participants (including myself, WSC volunteers and the local health workers) and the discussions that arose during the seminar and particularly later during the workshop, were anthropologically meaningful and provide valuable insights to my inquiry.

Flow obstructed

The seminar and workshop were initially designed as a one-way process in which the WSC volunteer(s), certified chiropractor(s) and practitioner(s), ‘taught’ the course material and techniques to the physiotherapists while, *learning from* the physiotherapists did not appear to be part of the agenda. In this sense, the flow obstruction was pre-designed and WSC’s aim to promote interprofessional collaboration as part of the day’s activities is puzzling (and brings into question WSC’s understanding of what ‘collaboration’ means). Furthermore, the seminar and workshop

⁴² Video URL: <http://www.worldspinecare.org/for-most-people-in-the-world/>

had been organized in a highly structured fashion and the course material had been put together from sources provided to the volunteer by WSC. The (in)formation provided was unequivocal and unambiguous; a stark contrast with the uncertainties and creative improvisation experienced in the clinical setting – and in the process of bringing this ‘static information’ into being (see chapter 3). Multiple ‘factors’ (mechanical factors, neurogenic factors, psychological factors, social factors) were identified and protocols for ‘physical examination’ and ‘diagnosis’ were presented. The emphasis was put on the ‘definite do’s and definite don’ts’ of LBP/LPD management while most of what lies in-between – which, as demonstrated in chapter 3, encompasses a significant amount of what is going on in practice in the clinics, was left unexplored.

Two of the seminar’s power point slides prompted a particularly heated debate among the participants – a debate that carried on during the afternoon’s workshop. The two slides in question were titled: “Effective Therapies” and “Therapies Proven Ineffective” – which would correspond to the ‘definite do’s and definite don’ts’ of EBM clinical practice guidelines. One of the therapies included in the ‘Therapies Proven Ineffective’ slide was ‘Therapeutic Ultrasound’⁴³, which coincidentally happens to be one of the modalities used by the physiotherapists at Mahalapye Hospital. Although ‘proven’, through EBM’s methods, to be ‘ineffective’, therapeutic ultrasound has not – to the best of my knowledge – been proven ‘harmful’ and, as one of the WSC volunteers would later comment, the physiotherapists’ explanation (“*reasoning*”) for their use of this particular therapy was convincing. While justifying their choice to WSC volunteers during the workshop, one of the physiotherapists pointed out that “*research articles aren’t the only thing that guide practice*” (reminiscent of one of the WSC volunteers comment that “*a big part of what we do has no official evidence*”) and one of the arguments the physiotherapists brought forward to explain their use pertains to the patients’ “*beliefs*”. They argued the therapy “*works for pain control mainly because patients believe it does*”. This type of ‘evidence’, relying on practitioners’ experience, cannot be tested in laboratories and therefore is rarely officially considered ‘legitimate’ – that is, if we follow EBM’s hierarchy of evidence (see Figure 24). Nevertheless, the physiotherapists’ explanation seems to be in line with WSC’s – and EBM’s – “[reliance] on diverse

⁴³ The debate that took place was, according to my notes, on ‘therapeutic ultrasound’ while the ‘seminar feedback’ written by one of the WSC volunteers mentions it was rather on ‘IFC’ which refer to ‘Interferential Current Therapy’ – also included in the slide. I am therefore unable to assert with certainty which one of those the debate addressed although the therapy itself is of little importance to our discussion.

forms of evidence” (Knaapen, 20014, p.832) in determining the efficacy of a given treatment in practice. Furthermore, WSC acknowledges the power of “beliefs” in healing – “beliefs” is included in what is referred to as “biopsychosocial factors” (Hondras et al., 2015b).

Yet, clearly offended by WSC volunteers’ rhetoric during the seminar, one of the physiotherapists added – referring to the debate at hand – that *‘if you train in America, you have no idea what this is about’* and reminded WSC volunteers that *‘we are all professionals here... I think there are ways to promote our profession without putting others down’*. In other words, the physiotherapists felt WSC volunteers were imposing a hierarchy between the practitioners. A hierarchy in which WSC is positioned at the top – a stratification the physiotherapists felt was unjustified. During the workshop, the physiotherapists expressed very clearly that the course material, and the way in which it was delivered – particularly the ‘Therapies Proven Ineffective’ slide – made them very uncomfortable. They indicated that if more employees from the Hospital (doctors, medical officers, etc.) had been present, it could have engendered negative repercussions for their professional reputation and legitimacy, considering they use some of the modalities WSC blatantly and indisputably discredited. Moreover, this showcases the multiplicities within biomedicine – in practice, practitioners interpret and improvise EBM’s formal guidelines in a variety of ways. This is evocative of Pye’s argument that in any craft, the craftsmen – or in our case, practitioners (see chapter 3) – need to interpret and adapt the ‘rules’ to their specific situations since “instructions are always incomplete” (Pye, 1968, p.26). The way formal rules and guidelines are improvised in practices are bound to vary, thus creating multiplicities within a seemingly – or rather, ‘officially’ – uniform ‘system’.

The physiotherapists continued to challenge WSC volunteers as I wrote in my notebook, myself feeling quite uncomfortable with the situation: “*[the WSC volunteer] is being lectured right now*”. Fortunately, the volunteer who was delivering the (in)formation was very quick to grasp what was going on and navigated the situation to the best of her abilities – which I found impressive. She apologized on multiple occasions, listened to what the physiotherapists had to say and further managed to guide the discussion away from its confrontational character and towards a sharing opportunity. Once everybody had regained their composure and that it was clear to all that, not only were the physiotherapists offended by the events, but also that they already ‘knew’ most of the course material and techniques presented by the WSC volunteer(s), the original plan

for the workshop was abandoned and the participants rather focused on an “*exchange of knowledge and practices*” (WSC volunteer).

As part of this exchange, the current challenges faced in the management of spinal conditions in Mahalapye and its surroundings were discussed by the practitioners. The local physiotherapists paved the way by arguing that, too often, the medical officers and/or doctors solely prescribe pain medicine while they pointed out that there are other, less invasive alternatives that can be used, such as manual therapy and exercise. This is particularly interesting. I here remind the reader that WSC explains the *need* for their services in “under-serviced areas of the world” by asserting (or rather, assuming) that in those regions,

“[m]ost [populations] are currently treated ... in hospitals where they receive pain/anti-inflammatory medication only [while] [t]here are no comprehensive protocols or models of care available to enable health care workers to treat ... spinal conditions” (ibid.)

It appears this is *not* the case in Botswana where there *are* physiotherapists treating spinal conditions, both operating in the hospitals and from private clinics. Moreover, although ‘overmedication’ remains a challenge, it turns out there are local health workers who are already attending to this problematic – problematic that WSC’s brings forth to justify their intervention in Botswana. WSC volunteers moreover concluded that “*we [physiotherapists of Mahalapye and WSC practitioners] assess and manage patients in a very similar way*”. All agreed that this seminar and workshop would have been better suited for those professionals who lack specific training in LBP/LPD management and might be unaware of the work the physiotherapists do – and hence prescribe pain medicine only when they could be referring the patients to the physiotherapy ward.

I unfortunately did not get the opportunity to learn with the Mahalapye Hospital’s physiotherapists as they worked (shadowing), yet what emerged from the seminar and workshop is that – not surprisingly – they appear to be experienced, skilled practitioners, just as are WSC volunteers. Should WSC volunteers have proceeded by attuning their bodies and by moving with the local physiotherapists, they might have gained useful insights to understand the way the physiotherapists ‘know’ and the misunderstandings that emerged during WSD might have been avoided. It is unclear why WSC did not engage in this rather obvious step, *before* the implementation of their project in Botswana. This endeavour was unfortunately overlooked and

when I asked one of the WSC Clinical Team members if WSC had considered a partnership with the physiotherapists in order to implement their clinics⁴⁴, he answered that Mahalapye Hospital's physiotherapists lack specialized training (just as do WSC members who are trained in physiotherapy – yet those individuals are not discarded as inadequate) and therefore were not properly equipped to run a clinic. He added that the physiotherapists were, however, eligible to apply to the scholarship program – which would require them to leave their homes and move to Canada or the United States and undergo a four year's program in a foreign university – hinting that the university degrees previously earned by the physiotherapists are, again, inadequate. The physiotherapists' 'refusal' to take part in the scholarship program was thus used to explain and justify WSC's non-involvement with local physiotherapists – albeit the training sessions sporadically held by WSC volunteers.

WSC volunteers were met with similar responses when they communicated their concerns and feedback about the seminar and workshop to the WSC Clinical Team⁴⁵. WSC simply forwarded scientific articles 'proving' the ineffectiveness of therapeutic ultrasound and asked the volunteers to distribute them to the physiotherapists who, in turn, should change the way they work and cease to use it to instead, follow EBM's official guidelines. The physiotherapists' explanation (although provided in the volunteer's feedback) was simply not addressed nor acknowledged in WSC's response. WSC hence handled the situation by pressuring the physiotherapists to change their behaviors while the ways in which WSC operates were in no way questioned nor re-evaluated. To better understand the depth of the counter-flows (or tensions) that seem to appear within WSC, I might add that one of the WSC Clinical Team members who responded to the volunteers' feedback, is in fact one of the volunteers that journeyed to Botswana for a short stay during my fieldwork⁴⁶ and who strongly emphasized chiropractic as a craft. Hence, this clearly shows that

⁴⁴ As they are doing in Ghana, where they partnered with a local chiropractor already employed by and practicing at Accra (Ghana's capital) Hospital. This particular practitioner has, however, obtained her degree in Palmer College of Chiropractic in USA (WSC, 2016). It seems unlikely they would have considered such partnership if she had not pursued her studies in USA, Canada or Europe.

⁴⁵ I want to remind the reader that WSC volunteers are the only ones working at the clinic sites. While the WSC Clinical Team members' goals are to "establish evidence-based low-cost clinics in target communities; administer local relationships; direct and supervise clinics; and provide evidence-based care" (Haldeman et al., 2015), they are doing so mainly from their home countries – with sporadic, short visits to the clinic's site. Hence, when WSC volunteers reported to the WSC Clinical Team on the unfolding of the seminar and the workshop, none of its members had attended the event nor were in Botswana at the time.

⁴⁶ Not all WSC members' stay in Botswana overlapped. Some were present for a few weeks and returned to their home-countries while other volunteers stayed longer or arrived at a later date.

the discrepancy at hand cannot solely be explained by a lack of mutual understanding between WSC members operating at the clinic sites (WSC volunteers) and those operating from their home countries – rather, members seem to position themselves on one end of the spectrum or the other depending on the context at hand.

WSC volunteers who participated in the seminar and workshop later expressed frustration and disappointment regarding the unfolding and follow up of the events, and more generally with regards to their experience as WSC volunteers. Their expectations of ‘what it would be like’ to volunteer in Botswana – mostly based on the ways WSC discusses their initiatives since no pre-departure training is offered – did not match their experience. The emphasis WSC puts on the *essential* nature of the work its members do abroad (*it’s about survival*) led the volunteers to believe their work would directly impact people’s lives. Conversely, they asserted, on multiple occasions, that although they felt they were ‘helping’ – just as they would be in their home country – they didn’t feel like they made a difference in the “*survival*” of any of their patients.⁴⁷ Not only that, they felt they were harming in some instances – by discrediting the local physiotherapists for example.

Succinctly, the events and intra-actions/interactions that unfolded during and following WSD are central to the ‘art vs. science’ debate that appears to resurface when WSC volunteers move beyond the setting of their own clinics. While dealing with this situation, WSC seemed unable to recognize the physiotherapists’ capacities to navigate the uncertainties of the clinical setting by making use of skills and creative improvisation – as would do any craftsman – and rather strictly endorsed the ideal of EBM’s official guidelines (hence strictly according value to the *result* while, as I have argued in chapter 3, the *processes* through which those EBM’s official guidelines are elaborated are not devoid of uncertainties). EBM’s formal guidelines, I remind the reader, strive for a craftsmanship of certainty – which can be useful to minimize the risks – but is simply not representative of the “way we work” (Hallam and Ingold, 2007, p.12) – and is only possible “in principle” (Pye, 1968, p.28). Along this line, the same can be said about WSC’s goal to ‘adapt to the culture’: the skills required to do so in practice cannot be learned ‘by the book’. There are no set ‘recipe’ one can follow to learn how to be ‘culturally sensitive’. As Lock and Nguyen argue,

⁴⁷ That is not to say that WSC volunteers were unappreciative of their experience; contrariwise, they all mentioned what an incredible learning opportunity this provided and most of them are to this day, involved with WSC.

“no standardized approach to acquiring ‘cultural competence’ is adequate; the challenge demands a great deal of careful, context - sensitive reflection, rather than simply adding on cliché notions of ethnicity as another variable in the patient history.” (2010, p.8)

Similarly, Julie Livingston, who has been engaging in anthropological research for over a decade in Botswana, reminds us that:

“Biomedicine has become the therapeutic system of global health programs – its practices rely on purportedly universal bodies, technologies and things. Proponents of biomedicine ... understand the objects of biomedical practice to be materially obvious. Yet the challenges of clinical translation in a place like Botswana reveal instead the instability of medicine’s object.” (2012, p.71)

While this section already shows the instability of medicine’s object within biomedicine – or rather, its multiplicities –, the section that follows will explore healing in Botswana – which is *not* limited to biomedicine. This will emphasize the importance not only of recognizing the skills of biomedical health workers, yet also of recognizing traditional healers’ practices and skills. This I argue, is central if WSC hopes not only to collaborate with them, but further to fulfill their goal of ‘cultural adaptability’.

Emplaced skills: Healing in Botswana

What is going on (or not going on) in-between WSC and local practitioners who are trained in the same academic fashion (biomedical training) is already problematic. Yet, entering the worlds of practice of healers, with whom WSC has even less points of correspondence, requires even more refined skills of improvisation – an exercise that requires openness, not closure and thus to let go of the things we take for granted. This section will, although non-extensively (which would require longer fieldwork), explore healing in Botswana. Although I discussed traditional medicine with some of my research participants and additionally had the opportunity to meet with two traditional doctors, two prophets and further experienced faith healing sessions myself, I did not spend enough time learning with local healers to really understand (or ‘know’) how they work and heal. This in turn, can point to the fact that time needs to be allocated in order to achieve this, something WSC doesn’t currently do. As for my own contribution to this topic, it is important to understand that my aim is not to make any claim about traditional medicine or healing in Botswana. My aim is rather to provide an overview of how healing might be enacted in Botswana – more precisely in Mahalapye and Shoshong – and of the different groups of actors involved. This will serve to

highlight the challenges WSC volunteers might face when trying to ‘work’ in this previously unknown environment and will hint at the tremendous amount of skills needed for local health workers to navigate within this fluid space.

In Botswana, Livingston argues, “biomedical knowledge is not hegemonic but rather part of a more metaphysical world” (2012, p.73). Biomedicine is only one of the options available to the community when seeking ‘medical’ attention. The body, Livingston continues,

“is understood and inhabited in slightly different ways than we find in contemporary biomedicine or metropolitan lives. For example, organs begin and end in different places or combine together in different systems, and there are different relationships between people or between human and non-human actors, be they ancestral shades or bacteria that engender illness or sustain health.” (ibid., p.72)

The subsections that follows will help to illustrate these statements through specific examples. From what I have gathered from the literature as well as during fieldwork, there appears to be four main ‘categories’ of actors attending to healing in Botswana (Livingston, 2012; Haram, 1991; Barbee, 1986; Gewald, 2001; Dahl, 2012; Burke, 2000). One group of actors would simply be the biomedical healthcare professionals operating in the villages’ clinics and hospitals – such as the physiotherapists of Mahalapye Hospital. A second group is the traditional doctors, a third is the izangoma and a last one, the prophets (faith healers). The ‘names’ used to designate each of these groups vary in the literature and I chose to use those that emerged during fieldwork in Botswana. In addition, it is important to note that the delimitation of those ‘categories’ are not straightforward, nor are they presented in any specific ‘order’ of importance in this chapter. I chose to divide Batswana healers in ‘groups of actors’ to facilitate our discussion but I argue their delimitation is blurred. Healers can sometimes navigate in-between those ‘categories’ and the specificities of ‘who does what’ is also unclear.

Those uncertainties are further accentuated by the general reluctance I faced during fieldwork when trying to discuss healing. Healing (outside of the hospitals or clinics), I found, is simultaneously very much present and invisible in Mahalapye and Shoshong. Talking openly about traditional doctors and especially izangoma – that are often associated with witchcraft – appears

as somewhat ‘taboo’. My initial attempts to try and discuss traditional doctors⁴⁸ with Batswana were met with either silence or denial. People acknowledged they exist but most claimed to know little about the subject and further warned me against trying to contact them. I was told that, even if I managed to find out who was an isangoma⁴⁹, that they would only get angry and yell at me furiously saying “*Who told you I’m an isangoma!!*”. Every Motswana I asked to find out if they had ever consulted a traditional doctors or an isangoma, answered with to the negative. Kelebogile, a nurse working in a biomedical clinic in Mahalapye, is one of the few people who agreed to discuss these matters with me (although I am certain much was left untold). Still, although she mentioned that some of her family members were traditional doctors and/or izangoma, she claimed, like the other, that she, herself, had never sought help from them or any other traditional doctor/isangoma. Interestingly Kelebogile is also the one who introduced me to the two traditional doctors and to one of the prophets I met.

During our discussions, Kelebogile attempted to explain Batswana’s discomfort to discuss traditional doctors and izangoma. She suggested that “*maybe people are ashamed. There is a stigma here. They would rather say ‘oh no, I do God’! Shame came with the missionaries. We were made to believe that it [God] is better; the way to go.*” This comments echoes directly the histories of Mahalapye and Shoshong, and more generally of Bechuanaland/Botswana discussed in chapter 2. I here remind the reader that the London Missionary Society arrived in Bechuanaland in the early 1800s and soon gained influenced among the Batswana. In 1875, when Khama was inaugurated as chief of Shoshong, he attempted to suppress “all the tradition rites and ceremonies offensive to his Christian conscience” (Sillery, 1974, p.71) – including witchcraft. Moreover, in 1927 – during the British Protectorate – any witchcraft activity was criminalized through the Witchcraft Act – which is still in effect today (AGC Botswana, 2016). Only the herbalists’ (and faith healers’) practices are deemed acceptable by the Government of the Republic of Botswana. Still, as previously mentioned, the traditional doctors’ (herbalists’) practices are regulated to prevent “malpractice” (MOH, 2011). From what I was able to understand, this regulation is undertaken by each district’s local government (ACG Botswana, 2016). In the Central District (where Mahalapye and Shoshong are situated) the United Herbalist Association was created for

⁴⁸ I was, at this point, still unaware of the presence of izangoma – yet, I would soon learn that the term ‘traditional doctors’ is sometimes used to refer colloquially to traditional doctors/herbalists and izangoma.

⁴⁹ Izangoma is the plural form, isangoma the singular.

this purpose – although I was not able to find any ‘official information’ published by the Government of the Republic of Botswana concerning the UHA. What I learned about UHA during my fieldwork will be discussed in the next subsection.

Here, I argue that the difficulties I faced when attempting to talk about and/or gain access to traditional doctors and izangoma can be in part explained by the long process through which most of their practices were delegitimized and criminalized. Most Batswana I met, indeed preferred to say, as Kelebogile suggested: “*I do God*”. Another explanation could pertain to the ‘secrecies’ of witchcraft. For instance, Jeanne Favret-Saada, famous for her work on witchcraft asserts that ‘access’ to witchcraft is often reserved to those who have been bewitched: “if you’ve never been ‘taken’ you can’t speak about witchcraft” (2012, 440). She further adds, elaborating on her own experience: “they only spoke to me about it once they thought that I too had been ‘taken’” (ibid., see also Favret-Saada, 1977). My research participants did not mention this explicitly but I feel it ‘makes sense’. The fact that I, myself, had not been ‘taken’ can explain why I was kept from stepping into the worlds of witchcraft. Similarly, if one accepts Favret-Saada argument that only those who have been ‘taken’ can speak about witchcraft, it is interesting to note that the only conversation I had around witchcraft practices was with Boitumelo, who, coincidentally, claims to have been the victim of witchcraft’s activities (see below).

Before moving on, I want to clarify that WSC’s aim to collaborate with traditional healers (as laid out in the MOU – see chapter 2), only includes traditional healers whose practices are lawful in Botswana and I am not advocating for WSC to change this. It would be inappropriate for WSC, given their partnership with Botswana’s MOH to pursue collaboration or encourage practices that are illegal in the host country of their initiative⁵⁰. Nonetheless, izangoma and traditional doctors who work outside of the ‘official regulations’ (for instance, outside of the UHA and obviously, outside of EBM which is also anchored in legal matters) are undoubtedly providing care to Shoshong and Mahalapye’s community and their work cannot be ignored. Moreover, and central to my argument encouraging WSC to learn with and from local practitioners, is that this ‘shared knowledge’ of healing among Batswana is paramount to therapeutics (Livingston, 2012, p.111).

⁵⁰ The criminalization of healing practices is problematic as well, but exploring this process further would not directly serve our present argument.

Traditional doctors

Traditional doctor is the term that was used by my research participants to discuss healers that, I believe, are referred elsewhere as “herbalists” (Haram, 1991, p.168), or more simply “Tswana healers” (Livingston, 2012, p.70). As mentioned earlier, traditional doctors are the only healers for whom an official association exists and is recognized by the government in Botswana. The UHA issues official ‘certificates’ to traditional doctors – or more specifically to ‘herbalists’ – who successfully complete the examination and who can be henceforth officially registered as ‘healers’. One of the traditional doctors I discussed with⁵¹ explained that to be part of the association, you first need to successfully complete an array of tests. One is meant to evaluate their *ability to heal a patient* while another focuses on their formal *knowledge of medication*, here referring to “*herbals*” – medicine made of *plants*. The Association, I learned, currently does not have an office in Mahalapye due to land issue although I was told it is possible to get in contact with the Association through one of their representatives (a traditional doctor from Madiba, located close to Mahalapye, was mentioned). The traditional doctor who told me about the Association further explained that all UHA members gather once a year, while there is a ‘board meeting’ held every three months. He also added that there is a referral system in place, from the clinics/hospitals to the UHA who then refers the patient in question to a certified herbalist. From my understanding, the UHA only regulates the use of “*herbals*”. The following is an extract from my note, with regards to “*herbals*”. This extract is useful to understand how these differ from ‘pharmaceutical’, a problematic that has been explored in depth by other anthropologists such as Laplante (2015).

When I asked the traditional doctors if he only uses medication he makes himself or if he sometimes buy things from the chemist (or suggests chemists’ [pharmacy] medication to his patients)?, he says he doesn’t (but others do – for example, some church healers that didn’t have a ‘calling’). I ask if his medication work better and he says yes, explaining that the plants he uses are pure (he gathers them himself- from the ‘wild’ – no gardening) – in opposition to the chemist medicine that are ‘processed’ - they lose power.

⁵¹ This traditional doctor spoke very little English. Our conversation was facilitated through Kelebogile (Batswana nurse) who introduced him to me. She is fluent in English and Setswana and therefore offered to accompany me and acted as an interpreter/translator.

Still, plants are not the only medium used by traditional doctors in healing. These other mediums are, to the best of my knowledge, not recognized as legitimate nor officially recognized in the law by Botswana's government. For instance, during our interactions, the traditional doctor explained that, *depending on the cause of the problem, healing options will be different – plant medicine is not always relevant. Materials like cloth (with a specific color – blue was mentioned), strings, beads, and incense* can also be used and as plants, can be imbued with 'power'. 'Rituals' are involved but the specificities of this process were not shared with me nor did I get the opportunity to witness or experience it myself. The "ancestors" ("our grandfathers"), he added, play an active role in the healing process. The ancestors he explained, are the ones to guide him in his healing endeavours and there are different means by which he can enter in communication with them. "Casting bones" during treatment is one of them. To demonstrate this, he mimicked the process using his small container of snuff⁵² that he threw on the ground in front of him. He then gestured towards the 'invisible' bones *suggesting the position and orientation of the bones 'matter' and give him information*. He later emphasized that dreams are also crucial to his communication with the ancestors. The centrality of dreams to communicate with the ancestors in Xhosa healing, across Southern Africa has been noted and explored by other anthropologists such as Hirst (2005) and Laplante (2015). Moreover, to my surprise, this particular traditional doctor also acts as the archbishop and prophet for his church. He added that prayers are another medium he uses in healing. During our conversation, he further mentioned that he specializes in the treatment of people who have suffered "stroke" - using the English term.

The other traditional doctor I met, Sethunya, for her part operates completely outside the realm of the UHA. During our encounter she told us (Kelebogile was accompanying me) the story of how she came to dedicate her life to healing. Sethunya explained that it all started around the year 2002 when she started to experience 'problems' (she did not explain what her 'problems' were). She first turned to her church, seeking help but she was told: "*you don't belong here – your purpose is somewhere else*". She then turned to her brother, a traditional doctor who announced that *the ancestors also wanted her to be a healer* and that this was the reasons for her 'problems'. Sethunya explain[ed] *that when you are meant to heal, but that you don't fulfill your purpose, the*

⁵² Finely ground tobacco consummated by 'sniffing' it. Some of my research participants indicated that it is mostly used by traditional doctors and izangoma and allows them to enter propitious state to communicate with the badimo (or ancestral spirits that I believe are the 'ancestors' mentioned during this conversation).

ancestors can make you sick or give you trouble until you do so. This is how her healing journey (both for herself and as a life purpose to help others) began. This process has been discussed by many researchers and is referred to as “the sickness of calling” (Wreford, 2008, p.104). “The condition is signaled by physical and often emotional symptoms distinguished by their resistance to the ministrations of traditional or biomedical doctors. Diagnosis of a calling ... must be made by a qualified *isangoma*.” (Wreford, 2008, p.104) This description clearly echoes the process recounted by Sethunya.

Her journey began with the appearance of ‘problems’ (sickness). She then proceeded to seek help in faith healing, to no avail. This is when she was ‘diagnosed’ by her brother – an experienced traditional doctor who can communicate with the ancestors – and received her ‘calling’ to become a healer. Continuing her story and pointing to her many beaded bracelets she explained that she received them in 2002, as *part of her healing process. She has been wearing them since then and started getting better as she started to carry out her duties as a healer. She has some on both arms; one on each arm with ‘cloudy white’ beads only and several more with red and black bead.* Her bracelets coincidentally explain how I managed to secure a meeting with her. Kelebogile (the nurse) noticed Sethunya’s bracelets when she attended her appointment at the biomedical clinic where she works. Knowing they are usually worn by traditional doctors⁵³, she proceeded to tell her about my project and asked her if she would accept to discuss with me; request to which she agreed. Sethunya’s specialty lies in the healing of pregnant women who *have been told they would need to have a C-section* – a biomedical surgery. Using her hands to heal, she can *move the baby and put everything into place to avoid C-section* and allow for a natural birth. This shows how biomedical interventions are taken into account – albeit preferring to avoid some of them – by Botswana traditional doctors. On different occasions, I have also heard stories of traditional doctors who specializes in ‘*cleansing*’ (for instance at funerals or other important ceremonies) while others are told to have the ability to ‘*fix bones*’. The latter’s work could potentially be more specifically revealing to WSC, although all healer’s work seems useful to take into consideration within the context of Botswana – as I will highlight in the next section.

⁵³ I was also told by another of my research participants that beaded bracelets are usually worn by *izangoma*.

Izangoma

The term isangoma⁵⁴ to my knowledge, does not appear in other publications discussing Batswana healers yet the way my participants discussed izangoma seem to match the healers who are elsewhere called “diviners” (Haram, 1991, p.16). In many research articles, izangoma are discussed conjointly with traditional doctors under the category of traditional specialists/doctors. For instance, we can read that the “traditional specialists” are “diviners/herbalists” (Haram, 1991) and the two are discussed as ‘one’ – most often in comparison to the faith or spiritual healers (ibid.; Barbee, 1986). Moreover, as previously mentioned, izangoma are most famous for their affiliation with witchcraft⁵⁵ (Gewald, 2001; Dahl, 2012; Burke, 2000) and are sometimes simply referred to as “witch” or “moloji” in Setswana (Burke, 2000, p.205). Interestingly, in her article, Burke further dissociates the “day witches” from “night witches” and her descriptions appear to be somewhat in line with the healers my participants referred to as “*traditional doctors*” and “*izangoma*”.

From what I was able to gather, izangoma heal patients in a very similar fashion to traditional doctors (using the casting of bones, communication with ancestors, plants, beads, etc.). They are sought by many for healing purposes but in addition to this work, they are also said to attend to more ‘unusual’ complaints. For instance, one can go consult an isangoma if they wish to attract luck, gain money or gain power (for instance, I stumbled on newspaper articles asserting politicians were using witchcraft in order to maintain their positions). I was warned against trying to approach izangoma by fear I would get myself in trouble (bewitched?) and there seemed to be this looming danger surrounding them. Izangoma are said to “*drink blood*” as part of their initiation and they have been accused of performing “ritual murders”, or, in Setswana, “dipheko”. “Dipheko is technically not witchcraft since it is the process of procuring human body parts through murder to make into medicine to do witchcraft.” (Burke, 2000, p.205) My research participants rather referred to dipheko using the expression “*muthi killings*” – muthi being the term used for

⁵⁴ Izangoma rather appears to be a common term used to describe Xhosa diviner-healers in South Africa. (Wreford 2008, cited in Laplante, 2015, p.2).

⁵⁵ Witchcraft in Botswana refers to what Evans-Pritchard called ‘sorcery’: “Following Evans-Pritchard’s pioneering work ... a distinction is often made between witchcraft (an internal, inherited, often unconscious state) and sorcery (the malvolent intent to manipulate special powers and materials to hurt others.). According to Schapera (1952), there are no witches in Botswana, meaning that the Tswana do not believe that people are born with the innate capacity to do unwitting evil to others. There are only sorcerers, or those who willfully hurt their enemies.” (Burke, 2000, p.205)

‘medicine’ hence a ‘killing’ to obtain medicine (muthi). A friend whose family owns a hunting farm not far from Mahalapye also mentioned that one of their employees – who is an isangoma – sometimes requests animal body parts. For instance, whenever they kill a hyena at the farm, they give its snout to the isangoma who uses it to make muthi.

Izangoma – in addition to their healing abilities – are said to be able to cause sickness such as “headaches, pain, dizziness” (Burke, 2002, p.206) or even HIV (Dahl, 2012). A friend also told me that *tummy aches can be caused by witches, visiting in the night and making you eat something bad*. Witchcraft can also bring to ‘life’ creatures such as “*thokolosi*” that are usually sought for ‘help’ but can also harm people as we will see in the story below. I first heard about thokolosi (sometimes spelled tokoloshe) in early November as I was sitting in the WSC reception office in Mahalapye Hospital, casually conversing with Boitumelo, one of the WSC healthcare assistants, whom I had been spending most everyday with since my arrival in August and with whom I had already tried to discuss the subject of traditional doctors – without success. I asked her about her weekend and she mentioned that she had participated to an all-night prayer (all church members gather and pray ‘all night’). I asked her a few questions, trying to understand under which circumstances were these all-night prayers organized and she answered that all-night prayers are usually done at the request of a church member either for themselves or for someone else. To illustrate this, she told me about this lady who used to live in Mahalapye and who worked at Kaytee’s bar (a shop in Mahalapye famous for their fresh ‘chips’, tswana chicken and fat cakes):

One day, her house was full of new furniture but no one had seen a truck moving anything in or out. Kaytee’s wasn’t even that popular at the time and the lady didn’t have a husband so how could she afford all these things? How come she is rich? Not knowing how to explain the situation, people started talking and said: she must be using a thokolosi. Her sister was worried so she asked their church to do an all-night prayer at her (the lady’s) house (even though the lady was against it) to get rid of it: prophets can see them (thokolosi) and they can interfere with witchcraft. The prophet didn’t manage to kill it so the thokolosi got angry and started attacking the lady and would beat her in public. For instance, at the bus stop, she was pushed and it looked as though someone was pulling her skirt down but no one could see what was doing it to her. The thokolosi was scratching her face and people saw her

“fighting with something they couldn’t see”. The thokolosi only went away when the lady moved to Francistown and started going to church. (extract from my notes)

Not knowing what thokolosi are, her story didn’t really make sense to me and seeing my puzzlement, she tried to explain:

People can order/buy them from izangoma (the ones (thokolosi) from Durban in South Africa are popular). The ones who work with muthi (including traditional doctors and izangoma) can ‘make’ them. They (thokolosi) come in a box which contains muthi. The box is accompanied by instructions to complete a ritual with the muthi which, once completed will ‘create’ a thokolosi (can be male or female). Only certain people (the owner of the house / prophets) will be able to see it. Once you have a thokolosi, you have to cook and plate (serve the food) for him (no salt, it makes them sick and they can get angry). It will also expect you to have intercourse with it. You are expected to engage in sexual activity with it - If you are married, it will get jealous and kill your husband (e.g. he will die suffocated at night.). If you have a thokolosi, it gains power when people from your family (living at the house) die. Every year, one person of your family should die to keep it strong. Thokolosi also bring chaos to the household. Fights, arguments, violence, etc. When you buy a thokolosi, you can also specify that you want it to stay in another house, let’s say at your neighbour’s house. That way, they serve your purpose but they will disturb mainly your neighbour. Getting rid of a thokolosi can be hard. The best way is to contact the people who sold it to you and pay to buy a new package with other muthi and more instructions for a ritual that will make it disappear. Otherwise a lot of people try to get rid of them themselves (with salt, prayers, prophets, etc.) but if they are not strong enough the Thokolosi will get angry and attack / hurt the ‘owner’. They can easily follow you out of the house: it is sometimes why some people have strange behaviours. (extract from my notes)

She later recounted her own experience with a thokolosi – which did not belong to her but that lived in her house. Here is the story as I wrote it in my notebook:

One time, she left food out in the kitchen for her husband to eat when he came back from the bar. Only Boitumelo and the kids (young and already asleep) were home. When she got up to unlock the door and bring him the food, the plate was still in the same spot but when she

took the cover off, it was empty and clean. There was another time when she was in bed with her grandma and they both heard footsteps, a fall and then a climb (claws) on the house. The next morning, Boitumelo asked her grandma if she had heard but she refused to talk about it: “Please don’t talk about these things, maybe it’ll make it come back” (grandmother). That time coincides with when she (Boitumelo) started going to church and found praying before bed helped keeping the thokolosi away. She was also advised to mix salt with cayenne pepper and spread it around the house and the yard to keep the thokolosi from entering.

Surely enough, when I arrived home from the Hospital that day I quickly googled ‘thokolosi’ and many results came up – newspaper articles reporting alleged thokolosi attacks or rapes and some videos featuring the creatures, depicted as some sorts of beast. I even found, on the Marico South Africa website (a South African Company specializing “in haircare, healthcare and baby products”), a product named “Tokoloshe Salts” meant to protect you against the creature (Figure 25). Yet, albeit my many attempts at discussing izangoma with Batswana,



Figure 25 Tokoloshe Salts

this is the only conversation I ever managed to have on the subject. This conversation on thokolosi however is telling of the omnipresence of more-than-human life as something real and not to be simply discarded as belief or as irrelevant in the realm of health and illness.

Faith healing / Prophets

In contrast to the secrecy surrounding traditional doctors and izangoma, most people appear to belong to one of the many Independent African Churches operating in Mahalapye and Shoshong. Healing is integral to religious experiences and unlike other types of healing, does not necessarily require the presence/actions of a healer. One of my research participants explained: *“In church, you don’t rely on the prophet for help and healing. The power is within you and you have tools to help yourself like the Bible. The Bible comes from God and God never dies so you can always rely on him.”* There are, nonetheless, healers specialized in faith healing – the prophets who can, not only ‘prophesise’ about present and/or future events but can also diagnose and treat patients using different methods.

I had the opportunity to discuss with a prophet from one of the Zion Christian Churches (ZCC). He explained that in his case, he is a prophet by inheritance, his father was a prophet before him and when he started attending church at a young age, “*it just came*”. Faith healers from ZCC he explained, use mainly teas, coffee (that he points out are “*plants*”), water and prayers to perform healing. When I asked him if he could give me an example of a patient he had healed, he mentioned a woman who came to him with swollen legs but did not elaborate further on the healing process. Instead, he redirected the conversation towards ‘prophecies’ that he described as “*a gift*”, yet a gift that is “*not tangible*”. Rather, prophecies “*are guided by God and can be found everywhere*”, in dreams for instance. In order to “*know*” the prophecies when they appear, you need not only to follow your “*instinct*” and “*believe*” but also to be in the right state to connect with God. Hence, he argued, “*being a prophet comes with a sense of discipline. In order for you to be at that level – to prophesise - there are certain steps. You need to repent, fully embrace God, no alcohol no smoking and some foods are also prohibited.*” He continues by pointing out that, music, dancing and singing are all part of healing and added that “*music is the food for our spiritual soul*” – it “*puts you in a relaxed state where you can speak nicely with God*”.

I can attest to the power of music, and more generally of “sounds”, in faith healing. Following an invitation WSC volunteers and I received, I attended a first church service in November and for the remaining of my stay, I attended Sunday services almost every weekend, for a total of over 20 hours spent in church, mostly singing, dancing, praying, crying and sweating. The experience was not only great for the purpose of my thesis, I also thoroughly enjoyed participating in the celebrations. In my journal, I described the experience as a “*powerful sound overdoses*”:

“The amalgam of sounds is incredible and overwhelming: one prophet who preaches in English (lots of ‘emotion’ and gestures), one interpret who ‘translates’ the prophet’s words ‘live’ in Setswana with just as much vigor – the two voices interweave and overlap –, the music played by the band in the background (by a live band), the people signing, shouting, crying and praying in tongues. They all overlap to create a sort of ‘trance’ where you can feel the energy constantly rising and vibrating in and through your body. It is quite overwhelming. When the prophet shouts: “Can you feel God? Can you feel God is here with us?, it’s hard to say ‘no’. I don’t know if ‘God’ is what I felt but I cannot deny I felt

‘something’ and all sorts of emotions came bubbling up, uncontrollably. It’s really hard to describe with words.”

Moreover, each service ended with a different ‘healing session’. On the first day:

“the prophet called everyone who had ‘physical problems’ to make their way to the front of the church. Around five people (most accompanied - by a family member?) went. The music continued and the prophet approached the first individual to start. A woman who had been sitting in front of the church during the service (the prophet’s wife?) also got up and approached the same man. The prophet placed his hands on each side of the man – one on his torso, the other on his back and with his eyes shut, he whispered animatedly in the man’s ear but with all the sounds I could not hear what he was saying. All the while, the woman had been holding the man’s hands with her eyes shut. The prophet then placed one of his hands on the man’s head and seemed to ‘concentrate’. He then moved on to the next person and they repeated a similar process with each one. One lady who was sitting close to me walked back to her seat, crying and looking very emotional.” (extract from journal – translated from French)

The healing sessions were always ‘different’ – on a different week, the healing was not directed at ‘physical problems’ but rather took the form of a group prayer to help those who were “*not right with God.*” We were often asked to repeat specific sentences out loud and address them to our neighbours – such as “*you need Jesus in your life*”. Besides, this is where I would hear time and again “*you are in the right place, at the right moment, with the right people*’ (see introduction). Faith healing is very ‘vocal’ and communicating and connecting with your fellow church members appears important.

Lastly, I want to note that faith healing also takes place in the hospitals. During the month of September, for instance, each morning at Mahalapye Hospital all the employees gathered in the emergency room to sing and pray before the day started. In her book, Livingston illustrates beautifully how this happens at Princess Marina Hospital in Gaborone:

“[I]ining up in a row, the nurses sing to Jesus. The complex harmonies of Tswana choral music are incredibly rich and beautiful, and they echo down the corridor ... Mma S comes out from behind the nurse’s station, Setswana Bible in hand, and begins to preach. Her voice feverishly rising and falling,

she implores Jesus to heal the sick, to help the patients, to bless the doctors in their work ... So begins each day in this cancer ward ... It is hard to stress how important this moment is, each morning, to clarify the purpose of medicine, to remind very sick patients that God is there and that their nurses pray for them.” (2012, p.105)

While WSC’s “Straighten Up” program (see chapter 3) might be worthy, so are such powerful healing sessions. Faith healing and its power in Botswana – and more generally across Southern Africa – have been discussed by others such as Klaitz (1998) and Werbner (2011) while Csordas’ (1994; 1998) contributions are useful to understand how faith healing works in charismatic churches.

Entanglement

Healing in Botswana emerges as a complex process where multiple lines entangle. The ‘limits’ between the different groups of actors involved is blurred and Botswana – healers as well as patients – appear to navigate this space with fluidity. I met both the traditional doctors and one of the prophets who accepted to participate in my research through Kelebogile, a nurse working in a biomedical clinic – clearly showing that local practitioners have ways to communicate (and perhaps collaborate?) with one another – albeit through ‘informal’ channels. One of the traditional doctors sought treatment in a biomedical clinic where Kelebogile works while the other traditional doctor I discussed with also happens to be a prophet for his church. Traditional doctors and izangoma can both heal and cause health issues using muthi (and other mediums) while one’s sickness might, in some instances, be explained by their ‘calling’ to become a healer. Moreover, it might occur that the only readily accessible solution available to overthrow witchcraft is to appeal to a prophet and faith healing (while purchasing muthi from another isangoma can also be another option as shown in Boitumelo’s story). Similarly, Botswana who ‘do God’ are not safe from witchcraft. Moreover, patients might seek help from more than one healer to deal with the same complaint. One of my research participants mentions, for instance that he strongly believes prayers are the most powerful way to ‘heal’ while his faith in God’s power doesn’t keep him from visiting the doctors at the biomedical clinics asserting that “*medicine can help*”. Similarly, faith healing, through prayers, is actively practiced in biomedical facilities – hinting that biomedical practitioners, although clearly convinced that their treatments work, also know that faith healing ‘*can help*’. Furthermore, Livingston, discussing her research in one of Gaborone’s Hospital

explains that: “[m]any patients had already sought help from Tswana or Christian prophetic healers” while Kelebogile paradoxically asserted that: “*Motswana tend to seek help elsewhere if they don’t get clarity from the hospital*”.

Kelebogile also added that, although “*people are not open about that [traditional doctors/izangoma], as a Motswana we know that almost everyone has used traditional medicine*”. This, conversely, is not ‘*known*’ by WSC volunteers and Kelebogile further explained that this shared knowledge is important in the way she treats and intra-acts with her patients. This is reminiscent of Mahalapye Hospital’s physiotherapist who argue that “*if you train in America, you have no idea what this is about*” – hinting that a four year’s training in the US in EBM cannot prepare for this. In the context of humanitarian medicine, foreign practitioners are working in a previously unknown environment where the skills needed to perform efficacious treatments will differ from the ones previously learned. This is supported by Livingston’s research in which she argues that in Botswana, “staff ... need to adapt this knowledge [EBM’s] to their institutional setting like a round peg to a square hole.” (ibid., p.25) In this process, “doctors, nurses and relatives tailor biomedical knowledge and practices to suit their specific situations”. Following this line, it is undeniable that the physiotherapists of Mahalapye who have accumulated years of practice in the clinical world and beyond in Botswana, have learned an array of skills that they incorporate in the way they work. Similarly, Livingston asserts that:

“In practicing empathy within biomedical care, oncology nurses draw on the resources of a collective moral imagination they share with patients, one shaped in part by Setswana and local Christian understanding. Empathy is predicated on a kind of intersubjectivity that is often effaced by or pushed to the background of biomedical ideas and practice, but which is foundational to bongaka (therapeutics).” (2012, p.111)

To practice empathy in this specific context requires the mastery of emplaced skills grounded in an understanding of healing in Botswana. Local biomedical practitioners *have* experience in adapting EBM’s formal principles to make them relevant to their specific situations. Those skills, as Livingston argues, are foundational to therapeutics and she reminds us that “improvisation is a defining feature of biomedicine” (ibid., p.6).

Although WSC volunteers – who are only working for short term periods in Botswana – might never be able to fully master these skills, learning with local practitioners are an initiative

they could undertake to move forward. Learning with physiotherapists and other local healers could, at the very least, help WSC volunteers to better communicate with their patients – a challenge WSC claim they strive to address (Haldeman et al., 2015). During one of my shadowing session, one of the WSC volunteers was treating a young child diagnosed with cerebral palsy – leaving him mostly paralyzed and blind. She asked the mother if she had brought her son to see any other doctors lately. The mother, instead of answering right away, took a few seconds to think and responded with an enquiry of her own: “*What kind of doctor are you talking about?*” – to which the WSC volunteer answered very quickly, without hesitation: “*Oh well, I don’t know, a specialist from Serowe Hospital for example.*” The mother answered “no” and the conversation ended. Yet, it seems obvious to me that if the mother took the time to ask the volunteer what kind of doctor she was referring to, it is because she had, indeed, brought her son to see another doctor – a traditional doctor perhaps. Still, who is considered a ‘doctor’ for WSC volunteers and for Botswana appear to differ and without emplaced knowledge of healing in Botswana, simple – yet potentially important – missteps like this one will continue to happen⁵⁶.

WSC’s failure to recognize local health workers’ capacities to navigate the uncertainties inherent to healing by making use of skills and creative improvisation as well as WSC’s strict upholding of EBM’s formal principles, only works to hamper their capacity – and their opportunity – to learn with local health workers. What seems to be the challenge is to ‘officially’ recognize that experience and the improvisational skills learned in practice are paramount in healing. This is where, I argue, the hierarchy of knowledge established by EBM’s hierarchy of evidence is harmful. In turn, my proposal is not a ‘reversal’ of hierarchies but rather to bring our attention to the more or less successful accomplishment of binding practice with protocols⁵⁷ - the point is to see how practitioners manage to make these meaningful in practice.

⁵⁶ This type of challenge has been noted elsewhere and appears common within global health initiatives. Using a case study, Lock and Nguyen illustrate this “difficulty in the globalization of biomedical experiments” (2010, p.196): “Tibetan women made clear to Adams that villagers were very cautious about divulging information because they were well aware that their local beliefs about the part the spirit world plays in successful pregnancies and birth were not compatible with those of the health care workers. This discrepancy made ‘truth-finding’ a complicated process”. (ibid.)

⁵⁷ Protocols are here understood as distant rules pertaining just as much to EBM as to for instance, ancestors.

Conclusion

Akin to the whirling rapids, I argue that there is a ‘concentration of meaning’ (Krause, 2013) to be found in the flows and counter-flows explored in the previous chapters and this conclusion will attempt to unravel it. More precisely, I will explore the blockages that appear to be keeping WSC from seriously paying attention to the ways Batswana health professionals improvise protocols in their everyday work. By exploring the rhetorical and political advantages offered by the category of ‘science’, I will argue that WSC’s choices to strictly follow EBM’s formal principles (in some contexts) appear to be strategic moves that allow WSC to navigate the international and humanitarian medical community rather than a fundamental paradigmatic allegiance to EBM’s formal principles. This situation, although problematic, also opens up a way to move forward and I will argue that WSC members and volunteers – perhaps unknowingly – already ‘know’ and apply some of the skills I have been pointing towards in their practice.

Evidence: Instruments of legitimation and regulation

I have shown how the ‘art vs. science’ dichotomy is inaccurate and not very useful to understand how WSC practitioners work. Yet, exploring the “rhetorical, [connotative] and political advantages” (Carmel, 2013, p.733) connected to ‘science’ provides further hints to better understand WSC’s choices to uphold EBM’s formal principles – and therefore to align themselves with the more radical ‘science’ proponents – in some instances.

“[In] modern industrialised societies ... [s]cience continues to enjoy considerable popularity as the exemplary measure of knowledge ... – to say that something is scientific is to accord it a privileged cultural position (Yearly 2005).” (ibid.)

The events leading to the correlation of science with knowledge in industrialized societies, and especially North America and Europe can be dated back to the 17th century (Lock & Nguyen, 2010) (see also chapter 1). Accordingly, “a scientific approach has long been advocated as a remedy to the shortcomings of medical practice” (Berg, 1997, cited in Carmel, 2013, p.733). Science and EBM – as we have seen in chapter 2 – have emerged as the ontological categories *par excellence* in global health and humanitarian medicine. Through this process, EBM and its hierarchy of evidence have become a “matter of legitimation as well as methodology.” (Lambert & al., 2006, p.2620). Similarly, Devries and Lemmens (2006) assert that:

“‘evidence’ is a social product influenced by the variable power and authority held by different stakeholders (patients, medical researchers, hospital administrators, clinicians, policy makers, etc.) in producing and determining the parameters for what counts as evidence.” (cited in Goldenburg, 2009, p.170)”

Within international and humanitarian medical communities, ‘what counts as evidence’ are those obtained from EBM’s research methods. Those kinds of evidence are further used to create EBM’s guidelines which “provide managers, government, or patients with an evaluative yardstick to which professionals’ work can be compared (Timmermans, 2005).” (Knaapen, 2014, p.829). As a not-for-profit charitable organization, WSC relies on the support and donations from governmental and non-governmental organizations that navigate global health and humanitarian medicine, in order to ‘keep going’. Hence, I argue that WSC’s allegiance to EBM’s formal principles, including its hierarchy of evidence, and to the development telos of global health – ‘back pain is the leading cause of disability worldwide, and by offering evidence-based spine care in under-serviced communities, WSC is directly impacting peoples’ health and survival’ – can be, in part, interpreted as a strategy to gain and maintain political legitimacy within this space.

Yet, it would be a mistake to assert that organizations such as WSC are solely ‘victims’ in this process (nor is WSC solely a ‘savior’). Contrariwise, researchers have found that “[p]rofessionals’ reaction to such auditing measures is described as one of resistance”⁵⁸ (Knaapen, 2014, p.829) and an increasing number of professional organizations are producing and imposing their own EBM standards and guidelines. (Levay and Waks, 2009; Weisz et al.,2007 cited in *ibid*, p.830) “Instead of third parties, it is the ‘knowledge and administrative’ elite of the medical profession that employs standards ‘to order, assess and direct the work of the rank and file’ doctors”. (Friedson, 1984, 15-16 cited in *ibid*.) In this process, “the boundaries of who constitute the regulators and the regulated are redrawn” (*ibid*). Moreover,

“[i]f evaluative standards developed from within the professional group can enhance that groups’ professional status, this is because who develops the standards is in control of what is made measurable, comparable, and governable and what is left informal, flexible, ambiguous, and invisible.” (*ibid.*, p.831)

⁵⁸ In our case this is true for WSC as well as for the physiotherapists in reaction to WSC.

In our case, and as briefly explored in chapters 2 and 3, it is World Spine Care in partnership with Global Spine Care Initiative that decide ‘what counts as evidence’ through the development of their evidence-based universal model of care for the management of musculoskeletal disorders. WSC and GSCI’s interprofessional and international character provides leverage for their claim that they are developing “*the best evidence-based model existing to date*”⁵⁹ and allows them to claim authoritative knowledge on spine care across a multitude of professions. I here remind the reader that WSC’s originality lies in their interprofessional team including professionals from a variety of biomedical fields such as neurosurgery, physical therapy (physiotherapy), neurology, biology, epidemiology and chiropractic. Not only does this contribute to enhance WSC legitimacy within the global health community, WSC also uses ‘EBM’ and the guidelines their teams are creating (here solely understood as the irrefutable *results* of this rather uncertain creation *process*) in order to claim legitimacy and authority wherever they implement their own initiatives. In doing so, WSC participates in the reinforcement of the widespread assumption that ‘science’ (and EBM) – as it is conceptualized today – is the sole ‘true’ source of legitimate knowledge – all the while evoking EBM without grounding it in what it means ‘in practice’, or to how it’s official guidelines ‘come into being’ or to how these are adapted to suit their everyday work. This is flagrant in the case of WSC interactions with the physiotherapists of Mahalapye Hospital as shown above. Similar dynamics seems to be at play with Batswana traditional doctors and to an extent, within WSC organization itself where WSC volunteers who are working in Botswana are pressured to implement WSC’s programs as they were elaborated by the WSC Executive, Research and Clinical Teams, even when the programs appear irrelevant to what is actually ‘going on’. WSC appears to be strategically summoning ‘EBM’ in contexts where its rhetorical and political advantage is opportune to set hierarchies between practitioners.

It has further been advanced and assumed, as Knaapen points out, that this type of “intra-professional” regulation relying on standards, “reduce[s] the professional authority of those being

⁵⁹ On a side note, it is interesting to highlight that although WSC is an interprofessional organization, its founder and a significant number of its members – notwithstanding the practitioners working at the clinics sties - are chiropractors. Chiropractic has only recently been accepted as an ‘EBM’ practice (although it is still unregulated in many countries). Dr. Scott Haldeman has been a key figure in this process and their drive to ‘stick’ to EBM could, potentially, be in part explained since, as Knaapen as noted, “standards can be especially appealing for groups whose professional work is criticized or goes unrecognized” (2014, p.831) – which was the case of chiropractic for many years.

monitored” (2014, p.833). This, I argue, is not always straightforward. Given the unfolding of the seminar and workshop, it is clear that WSC intended to ‘monitor’ the physiotherapists’ practices although there is nothing that allows me to assert that the physiotherapists ‘actually’ changed the way they work – conversely, in light of the debate that followed, it would be surprising. Alternately, in our case, WSC aims to ‘regulate’ Botswana health care professionals by pressuring them to strictly follow the EBM’s formal principles only reinforces the division between them, hindering any attempt to collaborate. Yet, as chapter 3 has explored, WSC volunteers do not operate in an automated way either, that is by strictly following EBM’s formal principles. Rather, they rely on their experience in-the-world to decide if/when/how to use those guidelines. They are allowed to navigate this space ‘in-between’ because they have ‘proof of their knowledge in EBM’ in their pocket (official university degree, etc.). Only once their knowledge and legitimacy has been established, does it become ‘acceptable’ – not to say an ‘imperative’ – to learn the ‘clinical art’ through practice and experience.

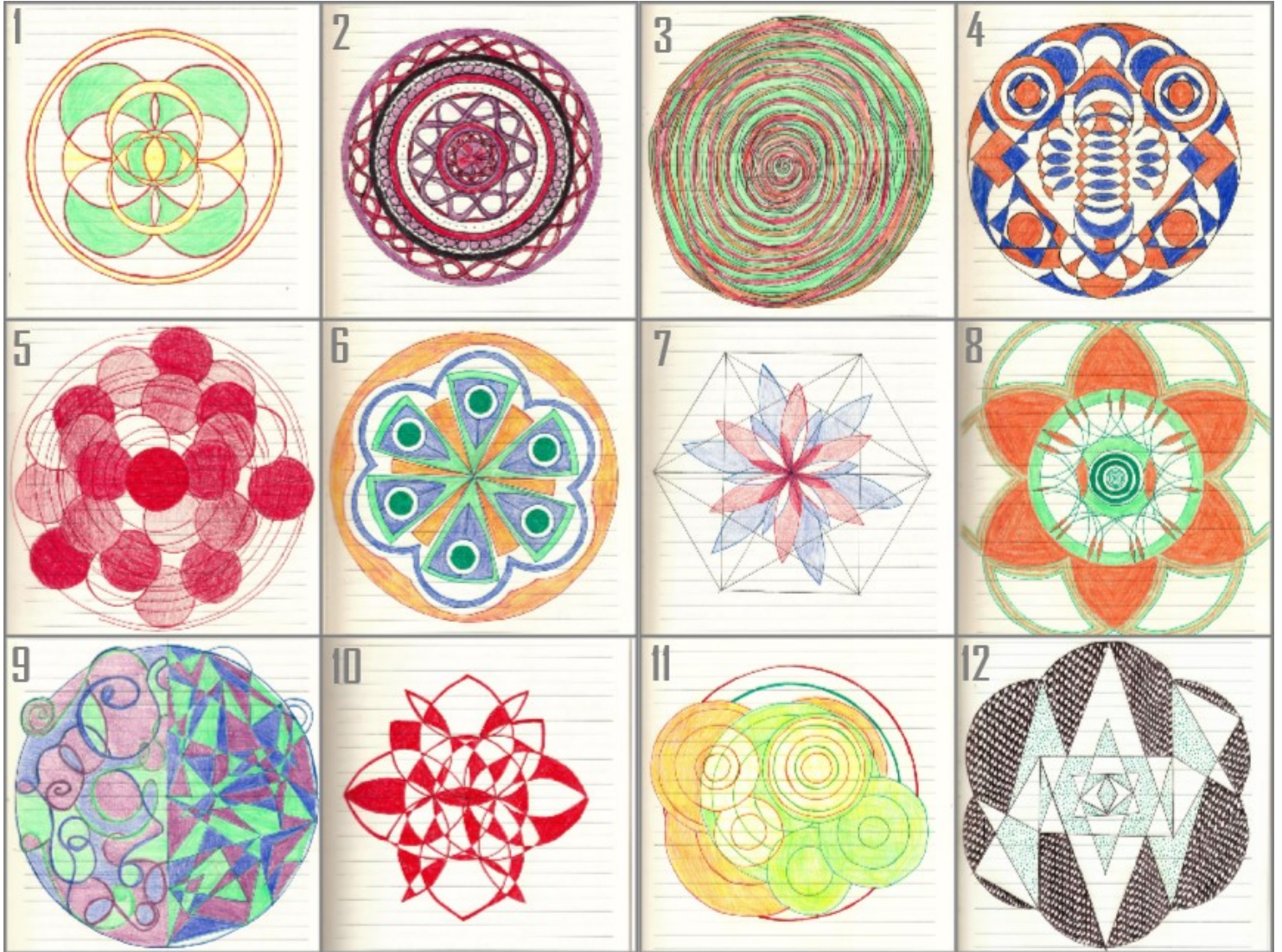
Concentration of meaning

Looping back to the ‘craft metaphor’ (see chapter 3), the physiotherapists are, rather, treated like ‘novices’ who, like in any craft, “first [need] to learn by the rules.” (Hallam & Ingold, 2007, p.12) Concurrently, the physiotherapists’ – and other Botswana health professionals’ – creative and improvisational skills are not recognized and there is an assumption on WSC part that they are the ‘masters’. In this uneven relationship, WSC has (or they assume they have) the “authority” to “determin[e] what is considered to be creative and what is not” (Barber 2007, cited in *ibid.*, p.20) – or, rather, to decide when the use of creativity/improvisation is acceptable or not. Why the physiotherapists are deemed unfit to do so – and therefore not allowed to navigate this space in-between – is ambiguous. They are after all, professional physiotherapists with many years of experience, operating within Botswana’s biomedical care system. One possible answer stems back to the developmental telos perpetuated within global health and humanitarian medicine. Biomedical care is believed to be ‘new’ in ‘underdeveloped’ countries and WSC clearly states that they consider Botswana to be ‘under-serviced’ when it comes to biomedical care. This portrays an anachronistic perception of the current situation and points to WSC failure to improvise the ‘development telos’ in a way that is relevant to Botswana’s specific conditions. The biomedical care system in Botswana is thus considered a ‘novice’ when compared to that of industrialized

country – where it was born. While this can in part be the case, WSC members and volunteers are ‘novices’ when it comes to understanding the context in Botswana and this needs to be acknowledged and acted upon – namely by taking the position of apprentice in certain situation. Still, as previously discussed in chapter 2, Botswana has been equipped with modern medical facilities for over three decades and was one of the first African countries to follow and implement WHO’s recommendations. That is not to say that the healthcare system in Botswana has no flaws (which one doesn’t?), but I do argue that WSC’s prompt and persistent dismissal of the physiotherapists’ adequacy is unjustified – yet, recognizing them as legitimate skilled practitioners could jeopardize the legitimacy of its initiative and Pilot Project in Botswana.

Ironically, this – recognizing local health workers as skilled practitioners, starting with the local physiotherapists – is exactly what emerges as a possible way to move forward for WSC if they wish to “ensure interaction ... with local care providers and traditional healers to share knowledge on the assessment and management of spinal problems and harmonise treatment efforts” (WSC & MOH, 2001), and increase their “sensitivity to cultural and local customs” (Haldeman et al., 2015, p.2308). As I have shown in the previous chapter, empathy – grounded in a shared understanding of healing, or to use WSC’s preferred rhetoric, of ‘culture’ – is paramount in healing. Local biomedical healthcare workers *have* experience in adapting EBM’s formal principles to make them relevant to their specific situations and by learning with and from them, WSC could find meaningful ways to further adapt their practice – an exercise they already excel at within the confines of their clinics. Hence, I argue, doing so would *not* necessitate for WSC members and volunteers to drastically change the way they work. Rather, they would require to (officially) expand the scope of their creative improvisational skills beyond the settings of WSC clinics. This is, I argue how WSC might be able to navigate the flows and counter-flows of life – and healing – in Botswana more successfully. Besides, as noted earlier, “those pragmatic and contextual considerations are increasingly revealed, formalized and reported in official tools.” (Knaapen, 2014, p.832) Embracing this current might, by the same token, participate in shifting the ‘criteria’ of legitimacy within global health and humanitarian medicine by hauling them nearer to ‘what is going on’.

Appendix 1 – Drawings



Bibliography

- Abram, D. (1996). *The Spell of the Sensuous*. New York: Vintage.
- AGC Botswana. (2016). *Local Government (District Councils)*. Retrieved from Botswana e-Laws: An Initiative by Attorney Generals Chambers: <http://www.elaws.gov.bw/law.php?id=1300>
- AGC Botswana. (2016). *Witchcraft*. Retrieved from Botswana e-Laws: An Initiative by Attorney Generals Chambers: <http://www.elaws.gov.bw/law.php?id=512>
- Barad, K. M. (2007). Niels Bohr's Philosophy-Physics: Quantum Physics and the Nature of Knowledge and Reality. In K. M. Barad, *Meeting the universe halfway. Quantum physics and the entanglement of matter and meaning* (pp. 97-131). Durham, États-Unis: Duke University Press.
- Barbee, E. (1986). Biomedical Resistance to Ethnomedicine in Botswana. *Soc.Sci.Med*, 22(1), 75-80.
- Barber, K. (2007). Improvisation and the Art of Making Things Stick. In E. Hallam, & T. Ingold, *Creativity and Cultural Improvisation* (pp. 25-41). New York: Berg.
- Becker, H. S. (1978). Arts and Crafts. *American Journal of Sociology*, 83(4), 862-889.
- Bensing, J. (2000). Bridging the gap. The separate worlds of evidence-based medicine and patient-centered medicine. *Patient Education and Counseling*, 39, 17-25.
- Bernard, H. (2006). *Research Methods in Anthropology (Fourth Edition) : Qualitative and Quantitative Approaches*. New York: Altamira Press.
- Botswana Vision 2016 Council. (2011). *A Long Term Vision for Botswana*. Retrieved from Country Planning Cycle Database: A World Health Organization Resource: http://www.nationalplanningcycles.org/sites/default/files/country_docs/Botswana/mediac_102.pdf
- Brauman, R. (2009). *La médecine humanitaire*. Paris: Presse Universitaire de France.
- Burke, C. (2000). They Cut Segametsi into Parts: Ritual Murder, Youth, and the Politics of Knowledge in Botswana. *Anthropologica Quarterly*, 73(4), 204-214.
- Carmel, S. (2013). The craft of intensive care medicine. *Sociology of Health and Illness*, 35(5), 731-745.
- Csordas, T. J. (1994). *The sacred self: a cultural phenomenology of charismatic healing*. Berkeley: University of California Press.
- Csordas, T., & Lewton, E. (1998). Practice, performance, and experience in ritual healing. *Transcultural Psychiatry*, 35(4), 435-512.
- Dahl, B. (2012). Beyond the Blame Paradigm: Rethinking Witchcraft Gossip and Stigma around HIV-Positive Children in Southeastern Botswana. *African Historical Review*, 44(1), 53-79.
- Delamont, S., & Atkinson, P. (2001). Doctoring Uncertainty: Mastering Craft Knowledge. *Social Studies of Science*, 31(1), 87-107.

- DePuy Synthes . (2016). *About DePuy Synthes Companies*. Retrieved from DePuy Synthes. People inspired: <https://www.depuysynthes.com/about/corporate-information>
- Dornan, T., & Nestel, D. (2013). Talking, Touching, and Cutting: The Craft of Medicine. *The Journal of Modern Craft*, 6(1), 35-48.
- Farquhar, J. (1994). *Knowing practice: the clinical encounter of Chinese medicine*. Boulder: Westview Press.
- Fassin, D. (2010). Ethics of Survival: A Democratic Approach to the Politics of Life. *Humanity: An international Journal of Human Rights, Humanitarianism, and Development*, 1(1), 81-95.
- Favret-Saada, J. (1977). Entre "prise" et reprise. In J. Favret-Saada, *Les mots, la mort, les sorts* (pp. 25-39). Paris: Gallimard.
- Favret-Saada, J. (201). Being affected. *HAU: Journal of Ethnographic Theory*, 2(1), 435-445.
- Gewald, J.-B. (2001). El Negro, El Nino, Witchcraft and the Absence of Rain in Botswana. *African Affairs*, 555-580.
- Global Spine Care Initiative. (2015). Retrieved from Global Spine Care Initiative: <http://www.globalspinecareinitiative.org/>
- Goldenberg, M. J. (2009). Iconoclast or Creed? Objectivism, Pragmatism, and the Hierarchy of Evidence. *Perspectives in Biology and Medicine*, 52(2), 168-187. doi:10.1353/pbm.0.0080
- Greenberg, P. (2009). Information, knowledge and wisdom in medical practice. In H. D'Cruz, J. Struan, & A. M. Schoo, *Knowledge-in-practice in the caring professions multidisciplinary perspectives* (pp. 29-49). Farnham: Ashgate.
- Haldeman, S., Nordin, M., Outerbridge, G., Hurwitz, E. L., Hondras, M., Brady, O., . . . Acaroglua, E. (2015). Creating a sustainable model of spine care in underserved communities: the World Spine Care (WSC) charity. *The Spine Journal*, 15, 2303-2311.
- Hallam, E., & Ingold, T. (2007). Creativity and Cultural Improvisation : An Introduction. In E. Hallam, & T. Ingold, *Creativity and Cultural Improvisation* (pp. 1-24). New York: Berg.
- Haram, L. (1991). Tswana Medicin in interaction with Biomedicine. *Soc. Sci. Med.*, 33(2), 167-175.
- Haraway, D. (2008). *When Species Meet*. Minneapolis, États-Unis: University of Minneapolis Press.
- Hirst, M. (2005). Dreams and Medicines: The Perspective of Xhosa Diviners and Novices in the Eastern Cape, South Africa. *Indo-Pacific Journal of Phenomenology*, 5(2), 1-22.
- Hondras, M., Myburgh, C., Hartvigsen, J., Haldeman, S., & Johannessen, H. (2015a). How can we assess the burden of muscle, bone and joint conditions in rural Botswana: context and methods for the MuBoJo focused ethnography. *Chiropractic & Manual Therapies*, 23(11).
- Hondras, M., Myburgh, C., Harvigsen, J., & Johannessen, H. (2015b). Botlhoko, botlhoko! How people talk about their musculoskeletal complaints in rural Botswana: a focused ethnography. *Global Health Action*.

- Hsu, C.-C., & Sandford, B. A. (2007). The Delphi Technique: Making Sense of Consensus. *Practical Assessment, Research & Evaluation, 12*(10).
- Ingold, T. (2007). Modes of Creativity in Life and Art : Introduction. In E. Hallam, & T. Ingold, *Creativity and Cultural Improvisation* (pp. 45-54). New York: Berg.
- Ingold, T. (2011). *Being Alive: Essays on movement, knowledge and description*. New York: Routledge.
- Ingold, T. (2012). Knowing From the Inside : Reconfiguring the Relations Between Anthropology and Ethnography. *Conference proceedings Buenas Aires*.
- Ingold, T. (2013). *Making: Anthropology, Archeology, Art and Architecture*. New York: Routledge.
- Ingold, T. (2015). *The life of lines*. London: Routledge.
- Klaits, F. (1998). Making a Good Death: AIDS and Social Belonging in an Independent Church in Gaborone. *Botswana Notes and Records, 30*, 101-119.
- Knaapen, L. (2014). Evidence-Based Mediine or Cookbook Medicine? Addressing Concerns over the Standardization of Care. *Sociology Compass, 8*(6), 823-836.
- Krause, F. (2013). Rapids on the "Stream of Life": The Significance of Water Movement on the Kemi River. *Worldviews*(17), 174-185.
- Lambert, H. (2006). Accounting for EBM: Notions of evidence in medicine. *Social Science & Medicine, 62*, 2633-2645.
- Lambert, H., Gordon, E. J., & Bogdan-Lovis, E. A. (2006). Introduction: Gift horse of Trojan horse? Social science perspectives on evidence-based health care. *Social Science & Medicine, 62*, 2613-2620.
- Langwick, S. A. (2011). *Bodies, Politics and African healing : the matter of maladies in Tanzania*. Bloomington, États-Unis: Indiana University Press.
- Laplante, J. (2015). *Healing Roots: Athropology in life and medicine*. New York: Berghahn Books.
- Latour, B. (1987). *Science in Action: How to Follow Scientists and Engineers Through Society*. Cambridge: Harvard University Press.
- Latour, B. (2000). When things strike back: a possible contribution of 'science studies' to the social sciences. *The British Journal of Sociology, 51*(1), 107-123.
- Latour, B. (2009). Will non-humans be saved? An argument in ecotheology. *Journal of the royal anthropological institute*(15), 459-475.
- Livingston, J. (2012). *Improvising Medicine: An african oncology Ward in an Emerging Cancer Epidemic*. London: Duke University Press.
- Lock, M., & Nguyen, V.-K. (2010). *An Anthropology of Biomedicine*. Chichester, Royaume-Uni: Wiley-Blackwell.

- Maustard, A., Davis, D., & Cowles, S. (2013). Co-being and intra-action in horse-human relationships : a multi-species ethnography of be(com)ing human and be(com)ing horse. *Social Anthropology*, 21, 322-335. doi:10.1111/1469-8676.12029
- Ministry of Health. (2009). *10th National Development Plan (2009-2016)*. Retrieved from Country Planning Cycle Database: A World Health Organization Resource: http://www.nationalplanningcycles.org/sites/default/files/country_docs/Botswana/ndp_botswana.pdf
- Ministry of Health. (2011). *National Health Policy 2011 - Republic of Botswana*. Retrieved from Country Planning Cycle Database: A World Health Organization Resource: http://www.nationalplanningcycles.org/sites/default/files/country_docs/Botswana/nhp_nov_2011_parliament.pdf
- Palladian Health. (2016). *Welcome to Palladian Health*. Retrieved from Palladian Health. Muscular Skeletal Health: <https://www.palladianhealth.com/>
- Pink, S. (2009). *Doing Sensory Ethnography*. London: SAGE Publications.
- Pye, D. (1968). *The nature and art of workmanship*. London: Cambridge University Press.
- Sackett, D., Rosenberg, W., Gray, J. M., Hayes, R. B., & Richardson, W. S. (1996). Evidence based medicine : what it is and what is isn't. *British Medical Journal*, 312, 71-72.
- Schlich, T. (2007). The Art and Science of Surgery: Innovation and Concepts of Medical Practice in Operative Fracture Care, 1960s-1970s. *Science, Technology & Human Values*, 32(1), 65-87.
- Schwenk, T. (1965). *Sensitive chaos: The creation of flowing forms in water and air*. London: Rudolf Steiner Press.
- Sillery, A. (1974). *Botswana: A Short Political History*. London: Methuen & CO LTD.
- Sismondo, S. (2010). *An Introduction to Science and Technology Studies*. Malden: Wiley-Blackwell.
- Skoll Foundation. (2015). *About Skoll*. Retrieved from Skoll: <http://skoll.org/about/about-skoll/>
- Strang, V. (2005). Common senses: Water, sensory experience and the generation of meaning. *Journal of Material Culture*, 10(1), 92-120.
- The Bone and Joint Decade. (2016). *Background & Goals*. Retrieved from The Bone and Joint Decade. Global Alliance for Musculoskeletal Health: <http://bjdonline.org/home/bjd-goals/>
- Werbner, R. (2011). The Charismatic Individual and the Sacred Self. *Journal of Religion in Africa*, 41(2), 180-205.
- White, R. (1996). *The Organic Machine: The Remaking of the Columbia River*. New York: Hill and Wang.
- World Health Organization. (1948). *Constitution of the World Health Organization*. Retrieved from <http://apps.who.int/gb/bd/PDF/bd47/EN/constitution-en.pdf?ua=1>
- World Health Organization. (1978). *Declaration of Alma-Ata*. Retrieved from World Health Organization: http://www.who.int/publications/almaata_declaration_en.pdf?ua=1

- World Health Organization. (2001). *Legal Status of Traditional Medicine and Complementary/Alternative Medicine : A Worldwide Review*. Genève, Suisse: World Health Organization.
- World Health Organization. (2015). *Traditional Medicine*. Retrieved mai 2015, from World Health Organization: http://www.who.int/topics/traditional_medicine/en/
- World Spine Care. (2014). Retrieved from World Spine Care: <http://worldspinecare.com>
- World Spine Care. (2015a). *For most people in the world...* Retrieved from World Spine Care: <http://www.worldspinecare.org/for-most-people-in-the-world/>
- World Spine Care. (2015b). *Work a Day for World Spine Care Challenge*. Retrieved from World Spine Care: <http://www.worldspinecare.org/wp-content/uploads/2015/10/WSC-workaday-info.pdf>
- World Spine Care. (2016). Retrieved from World Spine Care: <http://www.worldspinecare.org/>
- World Spine Day. (2015). *About World Spine Day*. Retrieved from October 16: World Spine Day: <http://www.worldspineday.org/world-spine-day/about-wsd/>
- Wreford, J. (2008). On "Being Called" (Ukubiswa). In J. Wreford, *Working with Spirit: Experiencing Izangoma Healing in Contemporary South Africa* (pp. 103-130). United States: Berghahn Books.
- WSC, MOH. (2011). *Memorandum of Understanding Between the Government of the Republic of Botswana Represented by the Ministry of health and World Spine Care for the Establishment of Spine Care Centers in Rural Communities in Botswana*.