‘Ni kubahatisha tu!’ ‘It’s just a game of chance!’ Adaptation and resignation to perceived risks in rural Tanzania

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Abstract

Many HIV/AIDS prevention interventions have been shown to increase awareness and knowledge but few have been shown to impact on behaviour. This ethnographic study was designed to provide a holistic account of risk perception in order to inform our understandings of how HIV risk is perceived. Through qualitative methods it is both a deductive testing of the risk theories of Douglas and Giddens and an inductive, grounded investigation to identify which risks are prioritised and the discourses which influence risk perceptions in one rural and one neighbouring peri-urban site in north-western Tanzania.

Risk perception is framed by multiple, sometimes contradictory, discourses which shape individual perceptions of risk at particular moments. These are defined as a series of 'risk moments', each of which is context specific and contingent on dynamic social conditions. Living in a society in flux, where multiple forms of tradition co-exist with modern ideals, rural dwellers' experiences of past misfortune are often interpreted to inform a future-oriented risk perception. The role of chance and fatalism are dominant public and private discourses, but ones which co-exist with collective and individual capabilities to control risk through reliance on social capital and social networks to create *maendeleo* (development), despite restricted lifestyle alternatives and vulnerable socio-economic conditions.

Responses to some risks are invariable and predictable, such as routinised actions like hand washing. Responses to other risks, such as crop failure, vary according to predictable patterns. These patterns include social position and biography, defined through gender, socio-economic status, partner type and exposure to alternative lifestyle choices through migration. This is one of several ways in which risk perceptions are dominated by social factors. Others are the presumed social causes of many risks, and the social benefits or costs of risk aversion. Conflicting social risks, such as exposure to jealousy and being too trusting, are subject to cautious strategies to manage ambiguous social relations.

Within this dynamic social world, characterised by contradictions between adaptation and resignation, risk priorities are constantly re-assessed and management strategies re-negotiated as individuals encounter novel circumstances. The results from this research have confirmed this contingent nature of risk perception and contributed to our knowledge of people's approaches towards health risks and understandings of prevention which may be useful in the design of appropriate behaviour change campaigns.

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Nicola Desmond

I declare that this thesis has been composed by me and is a record of work performed by me, except where stated in the text.

Nicola Desmond, February 2009

A note on the text

To maintain the anonymity of the research participants all locations in the text have been changed except for larger cities in areas at some distance from the research sites. Similarly, all names used are pseudonyms and do not reflect the real names of those described. A full list of research participants, identified by their pseudonyms is presented in Appendix seven.

At the time of the research 1000 Tanzanian Shillings was equivalent to 40 pence. The value of the Tanzanian Shilling has dropped since the time of the research (2005-6). Prices cited are those of the research period. Tanzanian Shillings is denoted in the text using either 'TSh' or '/-' following current Tanzanian custom.

The official national minimum salary during 2005-6 was approximately 35,000 TSh although many individuals, especially in the informal sector, earned less than this.

All Swahili and Sukuma terms are referenced in the Glossary.

Glossary of Swahili and Sukuma Terms

Throughout the text Swahili terms are presented here and in the main text in *italics* whilst Sukuma terms are presented in ***bold italics***. All terms are included alphabetically in the following list with a clear description of meaning.

Afa (pl. *maafa*)	Accident / calamity / catastrophe / disaster
Akiba	Savings / stock/ reserve/ supply / hoard
Baba mdogo/mkubwa	Older or elder paternal uncle
Badugu ba ku buta gele	Relatives from the bow (patrilineage)
Badugu ba ku ngongo gete	Relatives from the back (matrilineage)
Bahati	Luck / chance
Bahati mbaya	Bad luck
Balaa	Misfortune (especially in relation to witchcraft)
Basumba	Traditional collective farming practised pre-Ujamaa
Bubi (pl. ***mabi***)	Risk or danger
Buganda (*pl.* ***luganda)***	Agricultural group
Bukombe	Brideprice negotiations
Bukwilima	Traditional and formal marriage
Buzwelele	Type of thatch made from cut grass which lasts as a roof between 2 and 3 years
Dagaa	Small fish common in Lake Victoria
*Daladala (*pl. *madaladala)*	Minibus
*Dhara (*pl. *madhara)*	Accident / harm / injury / loss
Dawa (pl. *madawa*)	Medicine / potion / cream
Dawa ya kienyeji	Traditional medicine
Fundi	Any type of workman
Gongo	Strong locally brewed liquor similar to vodka
Harambee	Lit. joining hands. Committee to finance & organise wedding
Hatari	Risk / danger
Homa ya manjano	Yellow Fever
Ifogong'ho	Savings and credit group
Ihane	Age-based group of elders whose function included negotiation of bridewealth
Kidesturi	Customary
Kiduni	Low
Kimila	Traditional
Kisasa	Modern
Kinyuma	Backward
Kishamba	Rural (derogatory)
Kiutamaduni	Cultural
Kubahatisha	To take a chance
Kubola	Marriage which doesn't involve payment of bridewealth
Kuhofia	To fear
Kukinga	To protect / guard / defend
Kukwa	Marriage which involves payment of bridewealth
Kulehya	To elope

Kupiga lamri	Divination
Kuponza	To expose something to danger
Kutoroka	To elope
Kuzuia	To stop / restrain / obstruct / prevent
Maendeleo	Development / progress
Maisha ya kisasa	Modern life
Majambazi	Thieves
Mama mdogo / mkubwa	Younger or older maternal aunt
Mapepo	Spirits
Mashetani	Devils
Mchango	Local illness officially translated as 'intestinal worms' though invisible to biomedical tests
Mfumu *(pl.* ***Wafumu****)*	Traditional healer
Mganga wa kienyeji	Traditional healer
Minyaa	Plant used as hedging but also for targeting predictions by healers and curses by witches
Mitego	Traps set by witches
Mitumbwi	Fishing boats
Mizimu	Ancestor spirits
Mlokole (pl. walokole)	Born Again Christian
Msimbe (pl. wasimbe)	Woman living without a man (derogatory)
Msukule (pl. wasukule)	Zombie
Mtaa	Street
Mtemi	Sukuma chief
Ndagu	Evil medicine
Ndugu	Friend / relative / someone close
Ngoma	Lit. dance or drum
Ng'osheli	Cattle plough
Ngubilu	Yellow Fever
Ngumba	Sterile/barren
Nimeshazoea	I am already used to it
Nzengo	Street
Nzoka	Sukuma term for 'Mchango' (see above)
Panga	Traditional long knife
Rika	Agricultural group (also age-based group)
Shamba	Field
Shihani	Woman who cuckolds her husband
Shigele	Type of thatch which lasts as a roof for 8 to 10 years
Shilungu	Shell
Siafu	Biting ants
Sungusungu	Vigilante / militia / home guard
Tambiko	Protective traditional rite to promote desired outcome
Tasa	Sterile/barren
Uchawi	Witchcraft
Ugali	Stiff porridge made from maize flour often mixed with cassava flour
Uganga	Traditional Healing / sorcery
Ujamaa	Socialism (lit. pulling together)
Ukimwi	HIV/AIDS
Ungo	Basket / tray
Utaniona	Lit. 'You will see me'. Witchcraft related threat for which individuals can be taken to court
Utengano ni udhaifu	Unity is power

Uwezekano wa hatari	Possibility of risk
Vibaka	Pickpockets
Vitambua	Rice cakes
Walokole	Born again Christians
Wasiwasi	Anxiety / misgivings
Wembe	Lit. Razor. Used by traditional healers to make scars for the insertion of medicine

Chapter 1: Introduction

The aim of this thesis is to explore risk perceptions and the factors that influence such perceptions in north-western Tanzania. The study was designed to provide a better understanding of how people respond to HIV by examining how they respond to other risks in their daily lives. Despite twenty years of awareness and numerous interventions to prevent it, the HIV/AIDS epidemic continues to be a significant problem in Sub-Saharan Africa (SSA). Although prevalence is generally higher in Southern African countries, HIV/AIDS is also one of the leading causes of mortality in East Africa. Prevalence has decreased in Tanzania in recent years (UNAIDS 2007) from an estimated 8% in 15 to 49 year olds in the late 90s to 6.5% living with HIV in 2005 (Somi, Matee *et al*. 2006; UNAIDS 2006). Despite this, the pattern of spread in Tanzania reflects that of other SSA countries, where women are significantly more affected than men at a ratio of 3:2 (UNAIDS 2004). Patterns of prevalence were found to be regionally variable in Tanzania mainland (Tanzania Commission for AIDS 2005) from rates as high as 13% in Dar es Salaam and 11% in Iringa, to 2% in Manyara Region. Although prevalence in some areas, such as Mbeya (Jordan-Harder, Maboko *et al*. 2004) and Kagera (Lugalla, Emmelin *et al*. 2004) has fallen in recent years, it has continued to increase in others, such as Kisesa District in rural Mwanza (Mwaluko, Urassa *et al*. 2003). There is also recent evidence in rural areas of an increase in behaviour that could cause the epidemic to escalate (Yahya-Malima and al 2007).

While many HIV/AIDS prevention interventions have been shown to increase awareness and knowledge, very few have been shown to have an impact on behaviour. In research on mothers' perceptions of childbirth risks, Roth Allen suggests that there is a fundamental challenge in recognising the complexity of indigenous or emic concepts of risk and that this has been rarely captured by external intervention programmes (Allen 2002). Most

people in SSA are aware of the hazard of HIV infection, and know how to reduce the likelihood of infection, such as reducing the number of sexual partners and using condoms, but they often fail to adopt these practices (Behrman, Kohler *et al*. 2004). Some people find it easy to distance themselves from those who they perceive are at risk: young people often think the disease mainly affects older people, rural people may believe HIV to be an urban phenomenon, and those with few sexual partners often think that the disease is mainly restricted to those with many partners. However, even those who do not distance themselves from the threat of HIV in this way seem not to modify their behaviour. To date we have little understanding of the reasons for this. The failure to act on increased knowledge concerning HIV/AIDS suggests that it is not a sufficiently salient hazard for people to change their lives, or, alternatively, that it is thought to be impossible to modify the likelihood of becoming infected. With both of these possibilities, perceptions of HIV/AIDS are likely to reflect broader perceptions of risk. Fischoff *et al* (1981) concluded from a study evaluating approaches to acceptability of risk that '*it is meaningless to speak of acceptable risk in isolation from the question of choice about alternatives*' (Fischhoff, Lichenstein *et al*. 1981; RoyalSociety 1992).

The field of risk research is vast and crosses multiple disciplinary boundaries, encompassing statistics, mathematics, economics, psychology, sociology and anthropology. Across these there are '*significant differences in the way in which the concept of risk is defined and used, both across and within disciplines*' (Henwood, Pidgeon *et al*. 2008). Given such breadth, the difficulty of identifying unifying theoretical themes is recognised (Taylor-Gooby 2002). As such, and given the disciplinary nature of this particular contribution, I will concentrate on perspectives from the social sciences in general and from anthropology in particular, on risk perception. Citing The Royal Society Study Group on Risk, generally '*risk perception involves people's beliefs, attitudes, judgements and feelings, as well as the wider social or cultural values and dispositions*

that people adopt, towards hazards…' (RoyalSociety 1992). There has been a longstanding anthropological tradition of studies concerned with how humans deal with uncertainties such as the classic studies of Evans-Pritchard and Victor Turner (Evans-Pritchard 1937; Turner 1968) and more recently Mary Douglas and Susan Reynolds Whyte (Douglas and Wildavsky 1982; Douglas and Calvez 1990; Whyte 1997). Given this disciplinary approach, and acknowledging wider anthropological research in this area [for example (Allen 2002)] I take risk and uncertainty as one concept and define risk as '*a situation or an event where something of human value (including humans themselves) is at stake and where the outcome is uncertain*' [(Rosa 1998) cited in (Boholm 2003)].

In applying such a definition, the context in which a risk is perceived and understood exerts a major influence on the way a person understands and responds to it (Taylor-Gooby 2002). This introduces the concepts of framing and discourse. The former situates risk as understood, interpreted and experienced locally, embedded within local realities and acknowledging specific contexts for expressing risk priorities. This supports the anthropological approach which foregrounds the emic perspective. The latter concept of discourse provides a basis for recognising and interpreting the experience of a risk (Taylor-Gooby 2002), and suggests the interplay of wider social forces with individual understandings of and responses to risk (Lupton 1999). Again, this supports an anthropological study of risk as situated within the wider social landscape.

There are reputable meta-theoretical perspectives on risk within the social and cultural approach which have been tested and examined both quantitatively and qualitatively in diverse western contexts [for example see (Bellaby 1990; Wight 1999)], but applied only very rarely in non-western contexts [for example see (Haram 1995; Bujra 2000; Vera-Sanso 2000)]. These are documented in detail in Chapter 2. Briefly and selectively, these meta-theoretical perspectives include the cultural theory approach which was initially

based on a detailed ethnography of 'traditional' society (Douglas 1963; Douglas 1966) and which claims that '*human attitudes towards risk and danger are not homogeneous but vary systematically according to cultural biases*' (RoyalSociety 1992) i.e. the attitudes and beliefs shared by a particular group (Douglas and Wildavsky 1982). The social and cultural approaches to risk also include the perspective offered by Anthony Giddens (1991). Giddens has argued that risk is only *negotiable* in a 'late modern world' in which people have diverse choices. Risk perceptions are linked to self-identity, which becomes reflexively organised through the creation of narratives. The range of possibilities facing individuals both provides them with choice but also creates anxiety and self-doubt and results in an increased awareness of risk, specific to late (or reflexive) modernity (Giddens 1991). There are serious theoretical implications to both these approaches to risk. Following Douglas, people may highlight certain risks to defend their preferred lifestyles and this is determined by social and cultural factors. Following Giddens, risk perception is intrinsically connected to late modernity and can help to define relative exposure to modern (as conceptually opposed to traditional) lifestyles. In contrast to Giddens, Africanist literature would suggest that dichotomising tradition and modernity is inappropriate in non-western contexts, [for example (Appadurai 1996; Karp and Masolo 2000)]. These theories and their opponents are presented and considered in Chapter Two of the thesis. Given the inherent problems with accepted theories derived predominantly from a western paradigmatic approach, this research explores the relevance and applicability of these specific, social theories of risk perception to this non-western context and at the same time ensures ethnographic grounding within local realities.

The aim of the research was to identify the risks considered salient, and to investigate perceptions of and discourses influencing this salience, in one rural and one neighbouring peri-urban site in north-western Tanzania. The specific objectives were:

1. To identify those potential hazards about which villagers are most concerned.
2. To explore the extent to which an individual's social position affects his/her perception of these risks and thus whether Douglas's theoretical approach is useful.
3. To identify the predominant discourses through which villagers discuss risk, to clarify the extent to which these discourses depict individuals as agents able to control their exposure to risk and to examine the different social contexts in which different discourses are drawn upon.
4. To examine the effects of risk perception on health seeking behaviour.
5. To contextualise HIV risk within the broader risk landscape

This thesis provides empirical data in response to each of these objectives. An ethnographic approach ensured that the priorities of the research population were the focus of the study. This approach balanced deductive testing of the theories of Douglas and Giddens with the inductive development of new meso-theory (Hart 1999), grounded in the research data. The former was dependent on more structured sampling and methods whilst the latter relied on a more flexible approach whilst benefiting from the tools of the former. The details of the method are described more fully in Chapter 3 of the thesis. However, whilst there were pre-defined frameworks for the research in the design and piloting of in-depth interview checklists and focus group schedules, these were not necessarily adhered to, especially when individuals chose to highlight another aspect of risk perception. This flexible approach ensured that the risk priorities of the participants and the discourses that framed them were identified. Further, since my underlying objective was to understand the position of HIV/AIDS risk within the broader risk landscape, and given the fact that health symbolises or represents '*an attempt to conjure up a sense of relative order in the midst of the chronic uncertainties of life*' (Steffen, Jenkins *et al*. 2005), health risks and reactions to these in the form of treatment seeking or prevention also became a focus of the research.

By using ethnographic methods for data collection and framing perceptions within broader social and theoretical discourses, this work contributes to our understanding of individual responses to HIV/AIDS risk behaviour and of risk perceptions more broadly. Whilst the original aim of the thesis was to document the position of HIV within the risk landscape, the ethnographic approach and focus on the priorities of my informants changed the orientation of the final thesis. As such this work draws its rationale from the HIV debate but takes seriously calls to understand risk within the broader social context and makes this, rather than a greater understanding of HIV risk perceptions and behaviour, the endpoint of the research.

In Chapter 2 I situate the research within the framework of the wider literature. Specifically I focus on risk theories and consider their relevance to the research context of north-western Tanzania. I situate the risk theories examined in the thesis and explore previous empirical work which tests their relevance and usefulness to diverse geographical and thematic contexts. I present an overview of the historical and ethnographic background of the Sukuma of north-western Tanzania and the wider Africanist literature on risk and uncertainty.

Chapter 3 guides the reader in understanding how I identified my own particular 'truths' about the data. I delineate the methods employed to explore risk perception in the two field sites. In so doing I present the application of each tool as a process and document how the methods generated particular data. Through a reflexive positioning of myself as researcher, I demonstrate the techniques I adopted in negotiating my identity in the field and consider how this impacted both positively and negatively on the research. This process entailed linguistic and cultural engagement and, as I explain, culminated in certain encounters that provided proof of my acceptance as both outsider researcher and insider participant. The chapter concludes with a description of how the data were analysed.

Chapter 4 provides a descriptive ethnography of both field sites. This concentrates on those aspects of social and economic life which are most relevant to the arguments of the thesis as a whole. As such I acknowledge its partiality. As ethnography it documents through a first-hand account, life within two small, interconnected communities in one locale in north-western Tanzania. Specifically I focus on the economic landscape, examining the respective roles of agriculture, livestock management, fishing and business in the lives of individuals and groups in both locations. Recognising the dangers of implying a static and timeless ethnographic present of social isolation, I consider the wider socio-historical context to the fieldwork period and document the role of migration both to and away from the field sites. I return to a more situated field and describe the social landscape through home environments and family and community life. Finally I present an overview of the political and structural forces which form the wider social environment. In this I consider the roles of health, religion, education and politics.

Chapter 5, as a methodological and theoretical interlude, takes a contrasting approach to the ethnography of Chapter 4. I draw heavily on the empirical data and method to consider how risk was framed by my own research. I examine risk perception as a social construct both from the perspective of the lay population under study and from the etic positions of those who would define themselves as objective observers. I then explore how methodological factors have contributed to this particular understanding of risk perception. Since 'risk' is an etic term used by outsiders to the research setting, in a different language, I present the process of translation of concepts and demonstrate how this influenced meaning. Finally, to serve as background to the chapters that follow, I quantify the frequency of risks raised by research participants. This provides an overview of the heterogeneity of risk perceptions in this particular context, and an important starting point for situating the findings discussed in the following chapters.

The first of the main research themes is presented in Chapter 6, which demonstrates the centrality of social factors to risk perception. I present evidence of the relationship between risk perceptions and social relations. I explore two elements of these relations; those of social position and social capital. In addition to suggesting that social relations are integral to both the recognition and prioritisation of certain risks, I also show how such relations provide the tools for the implementation of risk aversion strategies. Having demonstrated the benefits of certain elements of social relations to the minimisation of risk, I highlight the ambiguity in these same relations. In so doing I show how the centrality of social relations and the salience of social risks in people's lives may contribute to an increase in their exposure to other risks. Whilst inductively foregrounding the perspectives of the research participants, this chapter also provides a deductive examination of the relevance of Douglas' theory of social position and risk perception.

In Chapter 7 I explore the data from a different perspective. I examine the conceptual relationship between risk and misfortune and consider risks given salience from this perspective as the interplay between the past and the future. I situate risk perception in this chapter as an approach to managing the future and show how research participants adopt strategies to manage the future and their own risk exposure. These range from the exploitation of social participation to active and conscious risk-taking as a normalised and acceptable strategy for managing the future. In counterpoint, I also explore the structural and discursive factors which may inhibit individual perceptions of their own agency.

Having presented the two main arguments of the thesis in Chapters 6 and 7, I review each of these with respect to the perception and management of health risks and treatment seeking behaviour in the research sites in Chapter 8. I present a typology of health risks experienced in the field sites and use this framework as a heuristic device to explore

interpretations of risk perception. I re-examine the relevance of social discourses to health risks in particular and show how health risks may be minimised through treatment decision making, rather than through prevention. Finally I explore how people shape health through either routinised and subconscious or specific and targeted strategies for prevention.

Chapter 9 draws conclusions about the nature and framing of risk perception in these particular rural and peri-urban villages in north-western Tanzania. In so doing, and in acknowledging the limited geographical scope of this research, I draw some theoretical conclusions and possible starting points for future research.

I intend this thesis as a response to the need to create an '*ethnographic method which considers risk in particular times and places and through the voices of particular informants*' (p.25) (Caplan 2000). In so doing I have attempted to respond to Caplan's call for research that '*incorporates an awareness of the dimensions of power, including agency, control and resistance*' and one that '*sees individuals in their social context, as embedded in networks of relationships which have an important bearing on their perceptions of risk*' (p.25) (Caplan 2000).

Chapter 2 Literature Review

2.1 Introduction

The topic of risk perception has drawn increasing interest in recent years amongst Western social scientists, in parallel with increasing research across many disciplines on risk assessment and management. The Royal Society (1992) defines risk assessment as '*the general term used to describe the study of decisions subject to uncertain consequences*' and risk management as '*the making of decisions concerning risks and their subsequent implementation*'(RoyalSociety 1992). Despite efforts, particularly in scientific disciplines such as engineering and chemistry, to treat risk assessment objectively (Adams 1995), it has increasingly been recognised that this possibility is limited (Bellaby and Lawrenson 2001). Rather, a central element of the study of risk should be to understand risk perceptions according to the relative situation of an individual with regard to the risk concerned (Gabe 1995).

Empirical work in the cognitive and social sciences has produced a risk field that is inter-disciplinary and topically wide-ranging, but its primary focus has been on western contexts. Since each 'risk topic' presents us with its own 'risk issues' the result has been that risk is understood in greater depth than ever before, but with this understanding comes a greater awareness of the complexity of risk and its relation to social context.

This literature review will provide the background to the ethnographic study of risk perception presented in this thesis. Section 2.2 will give an overview of terms and meanings of risk, situated historically, to enable the reader to trace the background to current trends in risk research, highlighting the lack of theoretical approaches to risk in non-western contexts. This section will conclude with a clear definition of what risk and

risk perception mean in a western context (in Chapter 5 I will consider translations of risk terms into non-western contexts).

In Section 2.3 I will discuss macro and meso-level theories of risk perception in the fields of sociology and anthropology. The three risk theories of Mary Douglas, Ulrich Beck and Anthony Giddens will be presented and their relative applicability to a non-western context will be considered. Brief reflection will also be given to the application of Michel Foucault's work to the study of risk.

In Section 2.4 I will present details of several empirical studies of risk, juxtaposing those based on deductive testing of theory with empirical induction. I will also briefly reflect on mid-level theoretical approaches to risk, such as those of trust, and the importance of risk framing in risk research. This section will conclude with an overview of empirical studies and present evidence for the need to expand the geographical range of such work.

Given that the underlying rationale informing this particular contribution to risk perception knowledge is that of HIV knowledge not translating to behaviour change, I will provide a brief overview in Section 2.5 of current research on HIV and risk in SSA. I will also refer here to the need for research which situates HIV within the wider social context.

Section 2.6 will then provide the context for my own study. I will present a brief description of the historical, socio-economic and cultural context of the research from the literature. This will provide a generalised ethnographic background to complement and contextualise the local ethnographic background of my own research.

Since the field of risk research in non-western contexts is conceptually and practically linked to understandings and interpretations of misfortune, section 2.7 will consider the

Africanist literature on misfortune and its relation to witchcraft. This section will also connect conceptually to frameworks of modernity and tradition more relevant to a non-western context and critically contrast these with modernity and postmodernity theories in the west. As such this last section will engage with a broader theoretical framework, merging anthropological and sociological risk theories to situate my own empirical research in north-west Tanzania.

2.2 The meaning of risk

The development of the term 'risk' in western history is connected to historical processes and events, and its meaning has changed over time. Hacking states that the Enlightenment brought changes to the concept of risk from that developed through trade during the Middle Ages. Risk came to describe a situation where certain advantages are to be gained only if something is at stake (Hacking 1990). In the Enlightenment era, risk began to be associated with both good and bad (Lupton 1999). Today in the western paradigm, it is more often associated with danger than with chance or probability (Douglas 1992) and implies a negative or undesirable outcome.

Susan Reynolds-Whyte stated that '*the precarious nature of existence is a cultural phenomenon in the sense that experience of peril and response to it are socially mediated in ways that are shared*', (Whyte 1997). Her ethnography of uncertainty in eastern Uganda explored Nyole perspectives on the experience of risk. Similarly Einarsdottir (2005) explored a retrospective approach to risk to social order through the Papel in Guinea-Bissau. She examined the uncertainties the Papel faced when dealing with children ,suspected of being born as non-humans (Einarsdottir 2005). Africanist ethnography has traditionally engaged with this notion of uncertainty about the future and the way people deal with misfortune since Evans-Pritchard's work amongst the Azande (Evans-Pritchard

1937) and more recently Victor Turner's amongst the Ndembe (Turner 1957). Here misfortune is interpreted as a negative event which has already occurred. In contrast both uncertainty and risk are directed towards an unknown future. The origin of non-western notions of risk is less easily defined than those of misfortune and uncertainty since risk has generally not been explored as a concept in this tradition until recently when, under the influence of HIV, the study of risk has been foregrounded over misfortune by health professionals. Many anthropologists and sociologists argue that cultures approach risk in different ways which often run counter to scientific or technical notions of risk which claim to be based on objective reality (Geissler and Ombongi 2006). This has in turn influenced the social science disciplines to re-situate the concept of risk within non-western societies. Renewed interest in risk as a concept has led to studies designed to understand risk comparatively across cultures (Renn and Rohrmann 2000), although this resurgence has predominantly been based in non-African contexts[1].

There has been a variety of definitions of risk in western and non-western contexts (Rohrmann and Renn 2000; Taylor-Gooby 2002). Recent definitions of risk combine hazard with uncertainty. For example the British Medical Association describes risk as '*the likelihood of a set of circumstances causing harmful consequences*' (Fox 1999). In mathematics, risk is commonly defined as the '*statistical probability of an outcome in combination with severity of the effect construed as a 'cost' that could be estimated in terms of money, deaths or cases of ill health*' (Boholm 2003), whilst in sociology it has been defined as '*a situation or event where something of human value (humans themselves) has been put at stake and where the outcome is uncertain*' (Rosa 1998; Boholm 2003). This definition allows for the possibility of either positive or negative outcomes (Rosa 1996) but in most contexts risk refers to '*a danger of unwanted events*' (Rohrmann and Renn 2000). Thus in the western context, risk becomes '*the likelihood of a dangerous or*

[1] See Kpanake et al (2008) for more recent cross-cultural study in France and francophone West Africa.

hazardous event occurring' or '*the possibility of incurring misfortune or loss*' (Collins 1999).

2.3 Theories of risk

It has long been acknowledged that the field of 'risk perception research' is a fragmented one (Pidgeon 2003). Researchers need to find some way to navigate between the '*psychometric paradigm and cultural theories of risk perception; between post-modernist and discourse-centered approaches and behavioural studies of risk ...*' (Pidgeon, Kasperson *et al*. 2003). Peter Taylor-Gooby (2002) suggests that these different theoretical approaches to the study of risk perception tend to be applied at different levels. He defines these as the individual level, at which psychological, cognitive and rational actor theories are applied, and the social level, where socio-cultural theories of sociology and social anthropology predominate. These examine the influence of group membership and shared meanings, as well as social network theory. Finally, Taylor-Gooby situates risk within a broader context of societal change in the reflexive modernity identified by sociology (Taylor-Gooby 2002). I adapt this framework as a tool through which to present macro-theoretical approaches to risk perception.

2.3.1 Risk perception at the individual level

Individual level theories aim to understand risk perception from the perspective of the individual. Whilst the cognitive, individual, and rational actor paradigms provide useful insights, they often fail to account for the situatedness of individuals within a dynamic social environment and may limit our understanding. Psychological theories, generally developed inductively, tend to be concerned with the way that risks and uncertainties are perceived under different circumstances and how emotional and physical states affect

individual responses (Tversky and Kahneman 1981; Sjoberg, Kolarova *et al*. 2000; Slovic, Finucane *et al*. 2002; Taylor-Gooby 2002; Slovic, Finucane *et al*. 2004). Deductive empirical, cognitive studies have tested the validity of the psychometric paradigm to understanding the role of emotions and factors such as dread and prior personal experience in individual risk assessment in a range of contexts. (Slovic 1992; Sjoberg 2000; Slovic 2000).

Rational actor theories, which include the Health Belief Model, and economic approaches to consumption and public choice, analyse risk perception and behaviour in terms of the costs and benefits to the individual (Jaeger, Renn *et al*. 2001; Taylor-Gooby 2002). The field of economic anthropology applies this to the study of avoidance strategies adopted by subsistence economies where researchers have understood socio-economic structure through the rational actions of individuals, at each level of society, in response to risk (Baksh and Johnson 1990).

2.3.2 Risk perception at the social level

As a structural functionalist, Mary Douglas was influenced by the Durkheimian view that social systems are composed of separate social institutions that function together to make up a society (Wilkinson 2001) and that exist independently of individual wills (Durkheim 1982). Her cultural/symbolic anthropological approach sees the way we think as a function of our social experience. Its origins lie in her earlier work on purity and danger (Douglas 1966), where she explores the notions of contamination and pollution, arguing that what is understood to be polluting, dangerous, and a threat to social order, is culturally specific and helps to define and maintain ideas about the Self and Other (Lupton 1999b). The choices we make are thus governed by our culture, defined as a set of shared beliefs and values (Dake 1992; Caplan 2000), whilst the choices we make also help to define our culture.

'*Cultural theory starts by assuming that a culture is a system of persons holding one another mutually accountable*' (Douglas 1985).

Taking a relativist constructionist approach, Douglas accepts the external reality of risks but argues that what people see as risky, the degree of risk associated with certain, often objectively defined risks, and what to do about these risks are all contested issues and context dependent (Douglas and Wildavsky 1982). As such perceived risks are likely to differ according to one's position in society. Some people are risk-taking and others risk-averse and one's perception is influenced by the degree of autonomy (grid) and degree of incorporation (group) that one experiences within society (Douglas 1985; Douglas and Calvez 1990; Douglas 1992).

Douglas' detailed model of four common social 'types' (hierarchies, isolates, individualists and dissenting enclaves) (Douglas 1970; Douglas and Wildavsky 1982; Douglas 1992) has been criticised as being too rigid, with static categories that fail to represent the complex dynamics of social position (Bellaby 1990). Critics have also argued about the implausibility of the high grid/low group category (Wight 1999). Whilst a strict adherence to Douglas' model is inapplicable in many social contexts, the cultural approach is considered useful, since social position has been proven to affect perceptions of risk in different contexts (Bellaby 1990; Wight 1999).

An application of Foucault to the investigation of risk perception produces a complementary socio-cultural approach to that of Douglas. Risk, in a Foucauldian sense, is not a topic to be researched in isolation. Since it is socially situated, research is also needed into the forms of knowledge, dominant discourses and expert techniques that '*render risk calculable and knowable, bringing it into being*' (Lupton 1999a; Lupton

1999b). Risk perception is thus embedded within social structures, which produce particular discourses that can be associated with one's social position (Rabinow 1986).

2.3.3 Risk perception as societal change

The sociologists Giddens and Beck emphasise the relationship between societal change and risk perception. They are primarily interested in the ways in which the concept of risk relates to the conditions of late modernity, such as processes of individualisation, reflexivity and globalisation. Late modernity describes the current period in the West which has proceeded from modernity. Modernity for Beck was the period following the Industrial Revolution when advances in technology resulted in an environment of trust in professional others. For Beck, the term 'reflexivity' describes '*self-confrontation*' (Beck 1992), and reflexive modernity is the '*process of modernity coming to critique itself*' (Lupton 1999b). For Giddens, reflexivity in late modernity involves the individual's awareness that the knowledge of experts is contingent and subject to change. There is a far greater emphasis in late modernity on the responsibility of the self to construct his/her own identity in a social world with few norms or certainties. This is a product of the loss of much of the power of traditions, and a greater openness in society due to an increase in lifestyle options and the range of transformations, or modifications available to the individual, as a result of expert knowledge (Giddens 1991; Allen 1996). Beck suggests that such a level of individualisation invites choice.

He describes risk during the period of modernity as being apparent, yet quantifiable, contained and controllable (Beck 2002). He sees developing nations of the second and third world as still living in a period of early modernity, struggling to create social welfare systems. In contrast, he argues, nation states of the first world have entered a period of reflexive modernity where the production of wealth (or 'goods'), as a result of

modernisation have resulted in a concomitant production of risk (or 'bads'). Thus the industrial society of modernisation has become a risk society. Risk, which was once perceived to be calculable, bounded and controlled by nation-states has become incalculable and global with unbounded effects (Beck 1992; Beck 1995; Beck 1999; Boyne 2001) (for example technological and environmental risks such as nuclear power and global warming where the consequences are experienced globally (Hogenboom, Mol *et al*. 2000)). Like Douglas, Beck is interested in why certain risks are the focus of certain social groups, and he attributes this to symbolic mediation (Beck 1992; Beck, Giddens *et al*. 1994).

Whilst Beck focuses on a 'risk society' in the West, Giddens examines pre-modernity and traditional society (Giddens 1994), where he argues that relationships with others were linked temporally and spatially, and individuals were dominated by localised activities. Fate and identity, oriented to the past, were constructed through tradition (Giddens 1991). Giddens' notion of 'traditional society' is highly problematic, and is critiqued for being too static and decontextualized [see for example (Sanders 2003)]. Giddens defines modernity as '*the condition for the articulation of social relations across wide spans of time-space, up to and including global systems'* (Giddens 1991). He also argues that social relations have been lifted from local contexts and '*rearticulated across indefinite tracts of time and space*'. This, he states, is a consequence of two institutional, disembedding mechanisms; that of 'symbolic tokens' such as money and 'expert systems' (Giddens 1991). Finally, access to new systems of knowledge across wider social contexts has encouraged greater reflexivity for individuals and institutions in modernity. Through all of these, modernity has brought unification and a common sense of humanity that was non-existent in pre-modern times. But the existence of disembedded risks, as a result of modernisation, means that a disaster could have unbounded consequences (Giddens 1991) Similarly to Beck, Giddens describes the risks of late modernity as attributable to human responsibility, and

highlights the concept of risk has only arisen with that of individual agency, the ability to make decisions, and to control the natural order (Giddens 1990; Giddens 1994).

2.4 An overview of empirical studies

The need for cross-cultural research on risk perceptions is emphasised in the empirical literature. Some research has focused on inter-ethnic differences in risk perceptions, although this is generally within one country, such as the U.S., or on one continent, such as Europe. There has been some research in non-western contexts, although the focus of these studies is generally on either HIV related risk (Barongo, Borgdorff *et al*. 1992; Schiller, Crystal *et al*. 1994) or coping strategies for risk management under uncertain or risky subsistence conditions (Baksh and Johnson 1990; Hames 1990; Gratz 2003). Recent research on risk in SSA has moved towards a more embedded understanding of risk perception with regard to HIV (Bujra 2000; Desmond, Allen *et al*. 2005; Haram 2005) or studies of risk perception more generally (Gratz 2003; Quinn, Huby *et al*. 2003; Kpanake, Chauvin *et al*. 2008). For example research on risk perception and management amongst gold miners in Benin approaches risk as both the real threat of occupational danger and as a construction influenced by social position (Gratz 2003). The following review explores some of the available empirical literature on risk perception, focusing on three areas; methodology, development of mid-level theory and deductive testing of grand theory. Studies included in this review are set out in Appendix 5.

2.4.1 Methodological Approaches

Whilst the majority of sociological and cultural studies (n=15) presented in the table in Appendix 5 are based on the inductive development of meso-level theory, there are many (n=8) that aim to test grand theories deductively. Of these 8 deductive and 15 inductive

studies the majority, (n=6 and n=12 respectively), use qualitative methods. I shall present some examples below to emphasise the benefits or shortfalls of particular methodological approaches to understanding risk perception.

The majority of deductive approaches to risk perceptions attempt to apply Douglas' 'cultural theory' to their data. Both Wight (1999) and Douglas and Calvez (1990) examined risk perceptions with regards to HIV. Whilst the latter concentrated on applying the grid/group approach, the former explored the role of socio-structural factors in asking if social position affects risk perception, applying cultural theory less rigidly. Data obtained from professional and lay respondents, accessed through HIV/AIDS services, were analysed by Douglas and Calvez, and their four groups were based on abstractions developed by social workers and researchers whilst in the field, rather than information provided through the data. Although they concluded that views of the body in relation to AIDS could be typed into four recognisable categories (Douglas and Calvez 1990), drawing results from abstractions seems to imply a secondary and potentially biased interpretation of the data, constructed to fit the grid/group model. This highlights one danger of deductive approaches which may result in a biased representation. Wight (1999), on the other hand, applied a loose deductive approach, attempting to measure the relevance of cultural theory in general. He used an in-depth interview schedule for structure but did not introduce HIV until it was raised by respondents in order to reduce any biased emphasis on the salience of HIV in everyday lives. Wight found that risk perceptions were shaped by two key social factors; friendship groups that were largely determined by socioeconomic factors, and stage in partnership career. Following Bellaby (1990), he concluded that social position is not static, and that Douglas fails to account for changing life circumstances and consequent changes in risk perception (Wight 1999).

Both Tulloch & Lupton (2003) and Moldrup & Morgall (2001) assess the relevance of Beck's risk society thesis to positive and negative risks in the former and the taking of drugs (Prozac) in the West in the latter. Tulloch and Lupton conducted semi-structured and open-ended interviews with participants in Sydney, Australia (n=74), and in three 'post-industrial cities in the UK (Oxford, Coventry and Cardiff) (n=60). These were identified using social networks and snowball sampling in Australia, and stratified by occupation type in the UK, because of Beck's notion of the 'overlapping nature of 'industrial modernity' and 'risk modernity' (Beck 1992 cited in Tulloch & Lupton 2003). The cohort on which Tulloch and Lupton's analysis is based is thus not random but represents a cross-section of types residing in these areas. For example, they interviewed gay men, ethnic minorities and men and women of varying ages, levels of education and types of employment. They were able to gain insights into both the epistemologies and discourses that give meaning to risk among non-experts, and to contextualise this within everyday lives by directing their questions to eliciting the views and experiences of risk in relation to personal life biographies. Participants were asked to define risk, describe the risks they perceived as threatening and those that affect people in general, but also how they had learnt about risks and what they saw as the cause of risks. Briefly, they conclude that Beck's theory is useful in understanding how late modern societies think about and deal with risk and that many interviewees conformed to his notion of a 'rationalist risk-avoider', reflexively weighing up their options when faced with a range of possibilities. They also conclude that Beck's notion of individualisation is supported by feelings of disembeddedness expressed by many interviewees. However, they found that Beck's focus on the universalisation of reactions to risk was not supported by their data, but rather that informants' reflexive responses to risk were shaped by factors such as gender, age, occupation, nationality and sexual identity, a finding that supports Douglas' cultural theory perspective (Douglas 1992).

Inductive approaches to risk perception research have benefited from emic identification of salient risks situated within the social context. For example, participant observation (PO) proved a useful tool in understanding risk perceptions amongst soldiers under 'risky ceasefires' in northern Ireland (Killworth 2000) because it allowed the researcher to identify with the risks faced by the participants, and the participants to discuss risks when they experienced them in situated contexts rather than interpreted post-hoc in interviews. PO was also useful in situating the risks of HIV in a gendered social life in Tanzania (Haram 2005).

A reflexive approach to her research led Day (2000) to analyse her own position in a study on HIV and female sex workers in London. Through the difficulties she experienced because of her alignment with a process of social control, through a clinical and epidemiological study, she became interested in the Foucauldian theme of surveillance and regulation of 'dangerous others', and thus became aware of these discourses as they affected the study participants (Day 2000).

Particular study designs may also aid the process of theory development. Caplan (2000) used anthropological methods of SSI, PO, food frequency questionnaires and food diaries in research on beef consumption in the context of the BSE crisis. Geographical variation of research sites enabled her to draw cross-cultural comparisons, and to examine the role of social location in risk perception and behaviour. She also situated her findings within a wider political context, filtered through the media. These combined approaches produced a comprehensive and representative understanding of the BSE food scare, contextualised socially, geographically and politically (Caplan 2000).

Careful purposive sampling of respondents enabled Bellaby and Lawrenson (2001) to understand the differences in expert and lay perceptions of road safety for motorcyclists

(Bellaby and Lawrenson 2001), whilst sampling was also beneficial to examining Beck's risk society thesis deductively for Tulloch and Lupton (Tulloch and Lupton 2003). The former also used combined qualitative and quantitative approaches with lay and 'expert' respondents, and concluded that the type of method is likely to affect understandings of risk perception.

Combinations of qualitative and quantitative techniques have been used to investigate simultaneously various risks, and to work with a large and representative sample. Burton-Jeangros (2000) used preliminary interviews and group discussions to define the range of health risks salient to mothers in Geneva, Switzerland, and applied these findings in developing a survey questionnaire, asking respondents to rate these risks in terms of the likelihood that they would experience them personally. A return to qualitative techniques after the survey enabled her to understand why rating likelihood resulted in a high number of lows; a result of the tendency to deny risks, especially with regard to health. This juxtaposition of qualitative and quantitative methods enabled her to draw conclusions that were representative as well as to explain the findings through meso-theory.

Longitudinal studies of risk perception have identified the dynamic nature of risk perception. Becker and Nachtigall (1994) studied risk perceptions associated with infertility treatment in the US (Becker and Nachtigall 1994). They interviewed couples and women at baseline and again after 6 months of undergoing treatment. As couples progressed through treatment they found that perceptions of the risks involved increased over time, and that this followed distinct stages. These were initially influenced by personal biographies and the salience of children in people's lives, as such risks inherent in treatment were perceived as routine by both patients and physicians. But views began to change when treatment had been continually unsuccessful and extensive. Lay and expert perceptions were also found to be similar at the beginning of treatment, lay perceptions

influenced by desire to have a child at all costs, and professional by the 'normality' of fertility treatment.

2.4.2 Development of mid-level theory

The inductive development of meso theory is a natural outcome of the thematic heterogeneity, geographical dispersion and methodological techniques of risk perception work.

The relationship between lay and expert risk constructions is addressed in discussions of road safety (Bellaby and Lawrenson 2001), acceptance of hygdrogen as a fuel (Bellaby and Flynn 2004) and health (Burton-Jeangros 2000; Cohn 2000), and through cognitive approaches to the siting of nuclear waste repositories in Sweden (Sjoberg 2004) and Spain (Stoffle, Traugott *et al*. 1991). In addition, the role of trust in risk perceptions is explored in studies of HIV and genetically modified (GM) food (Bujra 2000; Gaskell, Allum *et al*. 2004). Risk versus benefit discourses frame public acceptance of new technologies (Gaskell, Allum *et al*. 2004; Finucane and Holup 2005). The public prioritise the perceived benefits over the perceived risks, thus, if benefits are not evident, the risks are deemed to be greater, whilst perceptions of risks are minimised if the benefits are evident.

Trust is a theme that cuts across many studies of risk and is one developed by Caplan (2000) in her study of attitudes towards the consumption of British beef during the BSE crisis (Caplan 2000). It is also demonstrated to affect risk perception and behaviour either adversely or positively in research on HIV (Bujra 2000; Haram 2005), and in the belief in 'expert' messages in research on chronic illness (Cohn 2000). Issues arising through empirical studies include how trust in the source of a message influences risk perceptions positively (Caplan 2000), and how the desire to demonstrate trust, which may not alter risk

perception, can result in dangerous and risky behaviour with regard to HIV (Setel 1999; Bujra 2000; Haram 2005). Giddens, in describing the distinctive form reflexivity takes in modernity, addresses the notion of trust as a 'leap of faith' (Caplan 2000), linked to experiences of normality and trust in the everyday. Bujra argues that this interpretation is similar to that evidenced in Lushoto, Tanzania, in the context of HIV, where the introduction of condoms by health educators introduces distrust into everyday relationships (Bujra 2000).

The ability to control risk is linked to issues of causality and agency. Cohn discusses how those diagnosed with chronic illness (diabetes) attempt to regain control over their bodies by exercising their choice to continue smoking or drinking. To minimise personal responsibility and blame for health deterioration, they tend to attribute health to controllable and ill health to uncontrollable factors (Cohn 2000). Day uses the concepts of control and surveillance discussed by Foucault in her analysis of the risk perceptions and risk management decisions of prostitutes in London (Day 2000). She argues that, by taking control of their health through HIV prevention and STI treatment, prostitutes have reversed nineteenth century perceptions of risk as located in the 'other', and the need for surveillance, governance and control of 'risky others' described by Foucault (Foucault 1977). By adopting positive notions of the self, and greater understanding of the risks they faced, these women have gained control of their own risk, and are able to create the possibility, though not necessarily the reality, of alternative futures.

Killworth understood concepts of uncertainty in soldiers' risk constructions in Northern Ireland as both an internalisation and externalisation of risk. Daily risk was internalized at the individual level by the relationship between a soldier's actions and the safety of his Unit whilst in the field, necessitating the adoption of social responsibility. But agency and ultimate control of risk was externalized (Killworth 2000). This concept is also a theme

that emerges in Shaw's account of genetic screening for foetal abnormality amongst Pakistanis resident in the UK (Shaw 2000). Informants justified refusal to undergo foetal abnormality screening by reference to their religion. Control was thus externalised through religious fatalism or predestination, ('*qismat*'), '*each child is a gift from Allah'* (p87). Shaw related this to notions influenced by pre-modernity, and contextualised her argument within Giddens' discourse on traditionalist and post-traditionalist concepts of fate and risk.

Finally, discussion of the link between notions of risk and control is not always one that relates to risk as a negative concept. The relationship between voluntary risk-taking and control is explored by Tulloch and Lupton described in detail above (Lupton and Tulloch 2002; Tulloch and Lupton 2003) . Through open-ended risk narratives, they show how risks may be taken through choice, such as in extreme sports. Control of the level of risk is an integral component of the 'thrill' that people experience with the possibility of serious accident or injury with the loss of control (Lyng 1990).

2.4.3 The deductive use of grand theory

In reviewing the sociological and cultural risk literature, I have found only one example of an empirical study specifically designed to test Beck's theory of risk society (Tulloch and Lupton 2003), none targeted solely at Giddens' reflexive modernity thesis and a few using Douglas' framework to understand risk perceptions (Shin, Chey *et al*. 1989; Bellaby 1990; Douglas and Calvez 1990; Wight 1999; Xie, Wang *et al*. 2003).

I have already discussed in some detail Tulloch and Lupton's deductive approach to Beck (Tulloch and Lupton 2003). Deductive approaches to Douglas' theory have been methodologically broader. Empirical studies have been designed to examine whether perception of risk is dependent on one's position in society, whether some people are risk-

taking and others risk-averse, and if one's position is influenced by the degree of autonomy (grid) and degree of incorporation (group) that one experiences within society (Douglas and Calvez 1990). These studies have been both quantitative and qualitative, or both. For example, Xie *et al* investigated public perceived risks in China through the application of two surveys; to *examine* differences between occupational groups and whether gender was a factor in differences in risk perception, and the effect of employment status on risk perception (Xie, Wang *et al*. 2003). They concluded that there is no consistent evidence to prove that risk perception is shaped by social position, although it is socially constructed.

In contrast to this quantitative approach, Bellaby and, indeed, Douglas herself, have applied her theoretical concepts to empirical qualitative data, on workplace hazards and road safety (Bellaby 1990) and on risk aversive and risk-taking attitudes in the context of AIDS (Douglas and Calvez 1990). Both drew on the re-analysis of participant observation (Bellaby) and interview (Bellaby and Douglas and Calvez) data. Both studies applied Douglas' Grid/Group approach. Whilst Douglas and Calvez concluded that the data provided concrete empirical evidence, and that social position and relationship to the 'central community' dictate behaviour with respect to AIDS, Bellaby concluded that the Grid/Group approach was an '*important beginning'*, but that the categories were too static, and failed to account for the dynamics of life course changes brought about by, for example, internal power struggles. He argued that Douglas '*is unable to explain why individuals might move from one risk culture to another'* (Bellaby 1990).

Social science work on risk perception has been largely restricted to the Western context, the exceptions being largely restricted to HIV/AIDS. The following section presents a brief overview of key African studies which have applied the concept of risk perception in understanding HIV/AIDS behaviour.

2.5 Risk perception as a route to understanding HIV/AIDS

The concept of risk has been applied in various ways throughout the history of HIV research in the African sub-continent. These can be broadly divided into work on risk and work on risk perception. Examples of the former include the concept of the risk group as a group exposed to risky situations (Barker, Cooper *et al*. 1998) and risk reductive behaviour as dependent primarily on information, motivation and behavioural skills (Fisher 1992). Epidemiological applications of risk originally tended towards 'risk groups' and the individual behaviours characterising them (Pickering, Okongo *et al*. 1997), but more recently there have been calls for and research targeted towards risk environments (Desmond, Allen *et al*. 2005). Craddock has called for '*a more thorough discussion of risk and its social, economic, political, and cultural coordinates*' (Craddock 2000). Social science has recognised broader dimensions to risk perception as the interplay of agential and structural forces (Rothenberg and Potterat 1996). There have been many studies on the nature of risk perception as well as on the embedded nature of risk behaviour (Coates, Richter *et al*. 2008), either within a discourse of poverty, structural violence and inequality (Farmer, Lindenbaum *et al*. 1993; Seidel 1993; Barnett and Whiteside 2002; Lockhart 2008) or one of broader social (Bloor 1995; Dilger 2003; Smith and Watkins 2005; Swidler and Watkins 2007) or cultural (Obbo 1995) forces and wider social consequences of foregrounding one particular risk (Schoepf 1995; Setel 1996; Wallman 2000; Smith 2003).

These latter studies demonstrate the disconnect between people's interpretations of risk and knowledge of HIV. Many people in SSA are aware of their risk of infection, or at least develop awareness during knowledge-based interventions, whether or not this is sustained (MkV 2008) and are aware of strategies which would reduce this risk but often fail to adopt these practices (Behrman, Kohler *et al*. 2004; James, Reddy *et al*. 2004). This disconnect has been demonstrated in Tanzania (Killewo, Kwesigabo *et al*. 1998). More specifically, research in the Mwanza region of Tanzania has shown that despite exposure to

district level intervention packages, HIV has continued to spread both in a roadside trading centre and the surrounding rural areas (Mwaluko, Urassa *et al*. 2003). Other studies have shown that there is a strong correlation between community level factors, such as higher levels of social and economic activity or mobility, and HIV transmission (Bloom, Urassa *et al*. 2003). It is within this context, that of the Sukuma in north-western Tanzania, that this research took place. The following section provides an overview of the ethnographic context of the research.

2.6 The Sukuma of north-western Tanzania

Together with their culturally and geographically close neighbours, the Nyamwezi, the Sukuma comprise the largest ethnic group in Tanzania (Bukurura 1995; BureauofStatistics 2003). Although migration has contributed to the dispersion of the Sukuma throughout many urban areas, the majority continue to inhabit the Mwanza and Shinyanga regions. Despite increasing numbers of other ethnic groups in the area, such as the Zinza, Kerewe, Haya and Nyamwezi, the Sukuma were the majority ethnic group resident in the research site. The research took place in Mwanza Region where the population was estimated at 2,942,148 in 495,400 households (2002).

The Sukuma have been described variously as semi-sedentary agro-pastoralists (Bukurura 1995), as '*among Tanzania's foremost cattle-raisers*' (Varkevisser 1973), as not being '*primarily a cattle-people*' (Malcolm 1953) and as '*firstly agriculturalists, but (who) take great pride in pastoral pursuits* (Williams 1935). Despite these contradictions, what is clear is that they are primarily farmers, combining subsistence and cash crops with some cattle husbandry. There have been changes during the last century in crops varieties prioritised by the Sukuma. These have been influenced by largely locally uncontrollable factors such as market forces in the case of cash crops and laws regarding alcohol

production in that of subsistence crops. Today, the principle cash crop is cotton, although the surplus from crops cultivated for subsistence is also often sold. These include rice, maize, sweet potatoes, groundnuts, cassava and small vegetables such as tomatoes and onions. Cattle remain a potent symbol of wealth in rural Sukumaland (Wamoyi and Salamba 2000) and their social function as exchange in marriage negotiations remains their principle utility.

Despite traditional emphasis on agriculture and cattle husbandry, the Sukuma who inhabit villages close to the lake shore may also pursue fishing activities, ranging from small-scale to more formal corporate employment. Inhabitants of lake-side villages who do not themselves fish may often invest in nets or boats as an additional source of income. Through small-scale traders fish are often taken long distances to interior villages where they are sold at local markets. Thus, whilst fishing may not be as widely practiced as farming, it is a valued economic activity.

2.6.1 Broad social divisions

Gender, unsurprisingly, is one of the principle social divisions on which Sukuma society is founded. This is not to suggest that Sukuma social life is exclusively determined through gender differentiation, nor that men and women never mix. Rather, Sukuma society ascribes clearly defined roles to individuals according to sex and a child is taught the activities and roles of their sex from an early age (Varkevisser 1973). Moreover, social interaction between young men and women in rural villages is very limited (Wight, Plummer *et al*. 2006). There is evidence that traditional gender divisions are in decline with the increasing public nature of agricultural labour and the fact that farming groups (*rika*) are often composed of both men and women (Salamba and Nyalali 2001). Despite this increasing equality in labour roles and the sharing of produce for subsistence and

increasingly sale, land continues to be principally owned by men, with the exception of some divorced or widowed women who have been able to stake a claim to land since the fifties (Abrahams 1981).

Formal divisions based on chronological age play a minor role in Sukuma society. Rather, different roles in the life course, in particular being a school pupil, being married and being a parent, are central to both an individual's understanding of his/her own social position and to the way that s/he is viewed by others in the village (Roth Allen 2000). The social system is not age-graded as with their neighbours, the Maasai. Social divisions between family members do not result from differences in ages but from generational differences. Relations between proximate generations (children and their parents) differ in their nature from those between alternate generations (children and their grandparents) (Cory n.d.). The former are defined by rules of respect and regard for authority whilst the latter are defined by familiarity and joking relationships (Pedler 1940; Kabuaye 1975; Kazi 1975; Abrahams 1981). Such social divisions within families are not informed by age differences but by differences in social position.

The majority of Sukuma in rural areas often combine traditional beliefs with regular attendance at Church or Mosque and even many who claim to have abandoned traditional ways entirely may resort to a traditional healer in times of illness if biomedicine fails to exact a cure (Tanner 1956; Cory 1960; Gass 1973; Wijsen 1993). Whilst there is no pure dichotomy between traditional and formal religion, there are bounded social divisions between denominations (Cory 1960). These boundaries are most clearly evidenced in social groups established as mutual aid societies and in some cases in the refusal of the Catholic Church, for example, to assist the poor of another denomination. Seemingly, the commonality of traditional beliefs implies unity not division across formal denominations but paradoxically, traditional beliefs amongst the Sukuma are individually based and rarely

involve the coming together of wide social networks for one purpose. In fact, the divisive nature of traditional religion is most clearly apparent in the spate of witchcraft accusations during the eighties and nineties and the marginalisation of older women (Mesaki 1994; Miguel 2004). These accusations continue today and the numbers involved have been large enough to warrant the development of special shelters in Tabora Region to protect and provide for the accused. These are extreme, though common occurrences in rural Sukuma life. Such accusations and beliefs in the malpractice of others still result in serious social discord between neighbours and even families. Reactions to fear of sorcery commonly include relocation and migration (Tanner 1970; Mesaki 1994; Mesaki 1995).

Identity amongst the Sukuma has been discussed at length by Wijsen and Tanner. These authors argue that the concept of a Sukuma identity is one imposed from the outside, created by bureaucracy (Wijsen and Tanner 2002), and that the Sukuma have assimilated ethnic difference rather than opposed it. They provide evidence in the cultural and linguistic similarities and cross-migration between the Sukuma, Nyamwezi and Zinza. Abrahams also comments on the similarities between these groups (Abrahams 1981; Abrahams 1989), whilst Malcolm describes in detail the history of migration between what are now the Shinyanga and Mwanza Regions (Malcolm 1953). It is difficult to confirm Wijsen and Tanner's position on identity amongst the Sukuma since collective memory amongst the informants has assimilated a distinct Sukuma ethnicity, but there remain close relations between them and their neighbours, and ethnic groups have intermingled and even intermarried. Given this ethnic convergence, the findings of this study are applicable to a geographical rather than a distinct ethnic group.

Whilst ethnicity *per se* is not socially divisive, it may be associated with occupation or occupation may help to identify ethnicity. For example, fishing communities are composed of a wide variety of ethnic groups and, of these; the Kerewe and Luo are particularly

renowned for their skills. Ethnic differences may also affect residence patterns. For example, cattle raiding and conflict between the Maasai and the Sukuma has, in the past, restricted migration towards the East (Malcolm 1953). However, in general, the history of migration is one of ethnic cohesion rather than division. The Sukuma migrated to the north of Sengerema from Shinyanga and southern Mwanza Regions during the 19th century, an area previously inhabited by the Zinza, who are now interspersed with the Sukuma. A similar migration occurred earlier towards the Shinyanga Region to the south. Both were a result of population pressure, either due to threats of cattle disease or overpopulation, and both are identified as part of Sukumaland today. Both temporary and permanent migration continues to play an important role in the social life of the Sukuma today.

2.6.2 The family and marriage

There are many variations on marriage practices amongst the Sukuma (Varkevisser 1973), but marriage can generally be categorised into two types; those that include bridewealth (***kukwa***) and those that do not (***kubola***) (Malcolm 1953; Abrahams 1981). Since marriage among the Sukuma can be considered a process rather than an event (Wight, Plummer *et al*. 2006), the payment of bridewealth does not always precede marriage, and may be exchanged after the couple has been together for long periods. For women, it is the bearing of children within marriage, not marriage *per se*, that provides social legitimacy and recognition (Swantz 1966). On the other hand, for men, marriage is more necessary to the achievement of social recognition, since this is dependent on household ownership, maintenance of which may be difficult without the labour contribution of a wife and children.

The affiliation of children is also integral to the greater need to marry amongst men than women. Children born without payment of bridewealth belong to their maternal

grandfather who will be responsible for the provision and receipt of bridewealth for his grandsons and granddaughters. Such children would inherit from the maternal line (Wijsen and Tanner 2000), their paternal kin have no claim to them unless 'redemption payments' are made (Abrahams 1981). These transfer rights over children from the matriclan to the patriclan. Whilst traditionally only bridewealth marriages (***kukwa***) were considered legitimate (Wijsen and Tanner 2000), and only children born into these marriages would ensure the continued existence of their father as an ancestor spirit after death (Tanner 1958), both ***kukwa*** and ***kubola*** appear to have always existed. Indeed, the most common form of marriage today is that of *kutoroka* (to elope) where the woman runs away to her partner's household and reconciliation and subsequent payment of bridewealth occurs at a later date (Wight, Plummer *et al*. 2006). Although, theoretically, women achieve social status primarily through the bearing of children, not through marriage, there may be social pressure to marry since women may be described as '*wasimbe'* if they live without a man. Being described as such leads to social stigmatisation and may affect their future ability to find a 'good', formal, marriage partner (Wight, Plummer *et al*. 2006).

According to type of marriage, children are affiliated to their patrilineage (***badugu ba ku buta gele***, meaning 'relatives very much from the bow') and/or their matrilineage (***badugu ba ku ngongo gete***, meaning 'relatives very much from the back') (Varkevisser 1973; Brandstrom 1991). This distinction is a key concept in patterns of inheritance, residence and relationships in both the physical and supernatural worlds. Brandstrom, in the structuralist tradition, states that '*the left/right contrast is a fundamental theme in Sukuma-Nyamwezi thought. In various fields of ritual and daily life, left and right constitute important discriminatory categories in ordering their cultural and social universe,* ' (Varkevisser 1973; Brandstrom 1991). Uniquely, they associate the left hand with the male sex and the right with the female sex. This, he suggests, is because the bow is considered the core symbol of masculinity and is held in the left hand. The bow is traditionally one of

the main weapons used to kill animals or defend against enemies. In contrast, the central symbol of womanhood is a part of the body closely associated with motherhood, the back, since the mother traditionally uses her right hand to place the child on her back. Thus, maternal ancestors are considered right-hand ancestors and paternal ancestors, left-hand, and a complete individual is physically composed of both the left and right hand. As a social being, the individual is separated into both male and female principles and connections represented by the bow and the back. A child born without a socially recognised father is considered a child of the right, one-sided (Varkevisser 1973; Brandstrom 1991). This explains symbolically the relationship between maternal/paternal kin, right/left and back/bow. Socially a child's relations with maternal kin are likely to be less formal, than with paternal kin. For example a legitimate child may develop a joking and close relationship with his/her maternal grandmother. S/he will either inherit from his/her father and can expect payment of bridewealth in cattle at marriage from paternal kin, if male, or can expect to marry in exchange for cattle to be paid to the patriclan by her spouse's kin, if female. If a child has no socially recognised father and belongs to the matriclan, his/her relationships with the matriclan are likely to be more formal because they will take the position of the patriclan described above.

2.6.3 Parochialism and involvement in the cash economy

As previously described, the Sukuma are mainly agriculturalists but the majority are also involved in some form of animal husbandry. Livestock include cattle, goats, chickens and occasionally ducks. A secondary activity is fishing, both through migration and for those living close to the lake. Traditional activities in the village also include beer brewing. Millet was the traditional staple food crop amongst the Sukuma, and also brewed to make beer. Social status for both a man and his wife who undertook the work, was closely associated with the brewing and distribution of this beer (Varkevisser 1973). Distribution

was the key element that brought higher status. Since a license became necessary in recent years, what was once an activity performed by women in each household has now become 'professionalized' and has led to the development of small beer shops in rural villages. Grinding machines for maize and millet are common in villages as are charcoal sellers, blacksmiths, bicycle repairers and small shops selling basic items such as salt, sugar, matches, kerosene, sweets and some medicines. Some rural Sukuma combine some farming with more formal employment such as being teachers, civil servants or health workers, or are employed by large organisations such as cotton ginneries or fishing companies. Others combine farming with their role as traditional healers.

Whilst diversity in occupation and access to the cash economy has increased the wealth of many rural Sukuma, the majority continue to practice small-scale subsistence farming with some income gained from annual cash crops. Possessions may indicate wealth in the village but this is not always translated to higher social status. And wealth is not just displayed through possessions such as bicycles, radios and school books but also through social indicators such as number of wives, cattle and children, and, amongst many young men, through number of sexual partners.

Many young Sukuma today, by involvement in the cash economy, are becoming increasingly independent of their parent's land (Wight, Plummer *et al*. 2006). It has also been argued that through sexuality, youth are exposed to both modern and traditional norms (Dilger 2003) and negotiate their lives under uncertain conditions of diverse possibilities. Although many rural villages are relatively isolated, many Sukuma, especially the younger generation, will have travelled through education, family or opportunity-seeking, to urban and semi-urban centres on a permanent or semi-permanent basis.

2.6.4 Village organizations

Cooperation has traditionally been encouraged in rural Sukuma villages to improve the local physical environment and sustain a subsistence based economy. Although much of traditional social structure such as that of Chieftainships, has been altered, some of the main social groups and activities remain (Wamoyi and Salamba 2000).

The period between June and August, after the main harvest, is the traditional time for social activity and a period when dance groups (*ngoma*) perform. Two main dance societies are particularly renowned and have been in existence since the mid-nineteenth century. They are known as the Bagalu and Bagika dance societies and were initiated by two famous dancers, Ngika and Gumha who both spent long periods with traditional doctors to gain knowledge of their medicines. To assess the relative potency of each of their medicines they were encouraged to compete through dance (Bessire 1997). Today competitive dancing is accompanied by singing and drumming and the performance may continue for hours. The strength of the traditional medicines used and the ability of the performers are tested in front of a large social group, comprised mainly of young people, but older generations may also attend. As large-scale social events, these dances provide an opportunity for youth to meet new people and find new sexual partners (Wamoyi and Salamba 2000).

Farming groups are also important amongst the Sukuma. The first and largest farming group is the ***Kisumba***, composed of young men and young, unmarried women. Its existence was established to carry out community work such as the building of dams and houses and the cultivation of fields (Juma 1960). Membership was traditionally determined by strength. The group is paid in money, livestock or beer. Other groups are smaller and less formal and numbers, names and composition of such groups vary throughout the

region (Varkevisser 1973) . In common, they are opportunities to earn income through communal hired labour.

Traditionally, secret societies were also common amongst the Sukuma. Both Malcolm and Tanner refer to them in the fifties (Malcolm 1953; Tanner 1958) and Varkevisser mentions them from her fieldwork in the early seventies (Varkevisser 1973), but there is no data providing evidence that they continue to exist today, though their very name suggests that evidence may be hard to elicit. These societies were central to the magico-religious life of the community and existed to encourage ancestor worship to control perceived negative forces consequent to uncontrollable events, such as members of the twin society (Varkevisser 1973), or to recognise the importance of certain environmental factors that were beneficial to Sukuma social life such as the pangolin society (Wright 1954) or rain-makers (Tanner 1958). Membership was dependent on certain ascribed values: with twin societies, parents became members in order to revoke the negative consequences of producing twins; with rain-makers, membership was dependent on kinship and inheritance of powers; while with the pangolin society it was dependent on the acquisition of secret skills. Membership within each society provided a 'profession' and opportunity to access personal power and economic security through status and sharing of skills and was historically highly desirable.

Membership in these societies hint at socially embedded strategies to control risk. This is also linked to understandings and interpretations of misfortunes. The following section will consider the wider context of misfortune and witchcraft within the Africanist literature.

2.7 Witchcraft as discourse

As I have already stated, Africanist ethnography has traditionally engaged with notions of uncertainty and the way people deal with misfortune. Recent studies in this area have considered uncertainty in the form of ambiguity amongst parents whose children may or may not be non-human (Einarsdottir 2005) and uncertainty as an outcome of exposure to biomedical research (Geissler 2005). Others have explored uncertainty enacted and made meaningful through witchcraft and traditional practices. For example Evans-Pritchard's work amongst the Azande (Evans-Pritchard 1937) and Victor Turner's amongst the Ndembe (Turner 1957). More recent examples include Reynolds Whyte's ethnographic study of uncertainty amongst the Nyole of eastern Uganda (Whyte 1997). In this, she describes social processes such as divination and syncretic treatment seeking behaviour as sources of solutions to uncertainty expressed through illness. Such engagement with supernatural discourse is common in many areas of SSA. Ashforth (2002) states that it is not simply a question of belief or non-belief in witchcraft as '*the structure of relationships engaging aspects of the occult is far too complex to be reduced to this language*' (Ashforth 2002). Rather, many people struggle against such beliefs and the character of this struggle can take on '*religious, secular modernist, traditional and psychological hues all at once*' (Asforth 2001; Ashforth 2002).

Witchcraft as a discourse in the search for meaning is described as a response to the uncertainty surrounding the origin of AIDS in South Africa (Ashforth 2002) and Zimbabwe (Rodlach 2006). In this pursuit of meaning, Rodlach cites witchcraft as one discourse for blaming others which enables individuals to dissociate themselves from their own risk by 'othering' causation. This process of 'othering' has been a common component of understandings of HIV and is considered to be one reason why individuals fail to translate knowledge to behaviour. In rural north-western Tanzania some believe witchcraft to be the cause of one type of HIV (Mshana, Plummer *et al*. 2006). This '*AIDS-like illness,*' is

believed to present almost indistinguishably from AIDS. Mshana *et al* (2006) suggest that beliefs in this alternative cause for AIDS may be reinforced due to preferences to reduce social stigma and increase hope of a cure.

Increasing rates of mortality as a result of HIV may also contribute to resurgence of witchcraft accusations and attacks (Mshana, Plummer *et al*. 2006). Spates of witchcraft killings have occurred previously in Sukumaland and elsewhere in Tanzania (Abrahams 1994; Mesaki 1994). These have been associated with income drops as a result of extreme rainfall (Miguel 2004). Findings have suggested that witchcraft and accusations of witchcraft may be associated with social upheaval and enacted as the desire to re-assert order over social forces outwith the control of the individual (White 2000). Examples include the classic anthropological position which treats witchcraft as '*providing symbolic statements about tense social relations*' (Mombeshora 1994). Others demonstrate the convergence of disparate systems of meaning such as biomedical intervention amongst different populations that resulted in suspicions of witchcraft and blood stealing in Kenya (Geissler 2005) and Sukumaland (Nnko 2005). Yet others have attributed a resurgence in witchcraft and witchcraft accusations to forced resettlement under the *Ujamaa* policies of Julius Nyerere (Mesaki 1994; Stroeken 2001). Witchcraft associated with the realm of social relations will be explored as one aspect of risk perceptions in this thesis.

In common, the literature on African witchcraft suggests that, rather than an outdated and disappearing traditional artefact, it is instead adaptive to the conditions of contemporary Africa. Indeed the Witchcraft Act of Tanzania was most recently updated in 2002. This provides for '*punishment of witchcraft and of certain acts connected therewith*' (2002). Some recent commentaries on witchcraft have suggested that it provides a normalised discourse on modernity and development (Ashforth 1996; Green and Mesaki 2005), linked with '*new forms of consumption, production and political control*' (Moore and Sanders

2001; Weiss 2004). Witchcraft is able to reinvent itself under a more modern guise due to its ambivalent and dynamic status (Geshiere 1997). It is viewed as a response to the uncertainty that has been brought about by development. For example the Comaroff's (1999) described witchcraft as a '*thoroughly modern manifestation of uncertainty*' (Comaroff and Comaroff 1999; Moore and Sanders 2001) and that it '*engages in creative ways with novel postcolonial realities*' (Sanders 2003).

Yet others have emphasised instead the role of witchcraft as a dynamic discourse in understanding and interpreting 'tradition' as a conceptual category constantly being redefined (Sanders 2003). In this case witchcraft as 'tradition' represents not just a part of modernity but also a critique of modernity, enabling individuals exposed to both new forms of production through material gain and the concomitant breakdown in old values such as those of fertility and a long life as both '*desirable and disruptive*' (West 1997). Witchcraft is adopted as a conceptual category which people find meaningful (Sanders 2003). In this way, and following Moore and Sanders (2001), it is wrong to suggest that '*modernity destroys tradition*' (Giddens 1994) but rather that tradition prevails in multiple forms such as witchcraft which become '*part and parcel of modernity itself,*' (Moore and Sanders 2001). .

Weiss (2004) describes the '*cultural scene in Africa today*' as '*characterised by tensions that surround the unfolding of time and the security of the future*' (Weiss 2004). In this sense, the '*multiple modernities*' described by Moore and Sanders (2001) have encouraged an increase in uncertainty. This is the perspective of Giddens (1991) who views reflexive modernity as an increase in lifestyle options which in turn, increases risk awareness. However, Giddens describes this as a post-traditional society. This seems to be where Africanist theory on modernity divorces from popular paradigms in western sociology. An African modernity is rather a reinvention of traditions (Hobsbawn and Ranger 1983) and a

continuity with the past . Comaroff and Comaroff (1993) were perhaps right when they stated that '*modernity was always an imaginary construction of the present in terms of a mythic past*' (Comaroff and Comaroff 1993). In exploring lay perceptions of risk, this thesis will explore the relative value of these competing paradigms in seeking explanation of the empirical data**.**

Chapter 3: 'Risky practice': qualitative methods for risk research in Tanzania

3.1 Introduction

This research was designed to be both a deductive testing of the macro-risk theories of Douglas (Douglas and Wildavsky 1982; Douglas and Calvez 1990; Douglas 1992) and Giddens (Giddens 1990; Giddens 1991; Giddens 1994) and an inductive exploration into risk perception and the discourses drawn on to frame such perceptions in one geographical locale in north-western Tanzania. Given these dual objectives and in recognition of the epistemological basis of research evidence, this chapter sets out to situate the research methodologically. In so doing, I have followed recent anthropological traditions by recognising my own subjectivity within this research '*as providing the ground ... to think through their circumstances and to feel through their contradictions and in so doing to inwardly endure experiences that would otherwise be outwardly unbearable*' (Biehl, Good *et al*. 2007) and how this affected this particular perspective on risk perceptions. I have also drawn on examples from the data to demonstrate the process of elucidating truth and to reflect critically on the research methods and process.

Section 3.2 sets out my background and situates the period of research within the wider framework of my experience in Tanzania. Section 3.3 describes communication and language difficulties and the solutions sought to address these. In section 3.4 I consider the process of becoming a participant observer and reflect on my role in the field. Section 3.5 sets out the tools and techniques of data collection which were both designed beforehand such as focus group discussions and in-depth interviews, and those such as risk ranking which were adopted through the iterative process of exploring and triangulating the data. The tools are considered critically and I acknowledge the benefits and problems with the

application of different methods and document the process of method as it related to ongoing analysis. I then return to my own subjectivity in the data in section 3.6 and provide some examples of the challenges I faced and the solutions adopted. Finally in section 3.7 I present the data analysis on completion of the fieldwork

3.2 Background

I moved to a small four roomed house in a balozi[2] situated behind the main centre in Barakijiji village, the first of two fieldwork sites in September, 2005 and stayed until February 2006. I had moved to the United Republic of Tanzania in 1999, following my Masters degree in Social Anthropology, with somewhat naïve expectations of being useful and improving lives. I spent the following eight years working and living in the country, exchanging this initial naivity for a more realistic and embedded perspective. I felt at home when negotiating a refusal to pay higher prices than indigenous Tanzanians, negotiating babies and chickens on crowded *madaladala* (minibuses) hurtling down dirt covered mountain roads or wading through murky water to climb aboard unsteady *mitumbwi* (fishing boats) on the lake. My approach to this research was born out of these experiences of both rural and urban Tanzania, living in diverse locations from Moshi to rural Kilimanjaro Region underneath the shadow of Mawenzi Peak, from Dar es Salaam to rural Pangani District on the shores of the Indian Ocean, to Mwanza City, gold mining towns and finally the field sites of the rural Sukuma hinterland along the shores of Lake Victoria (see Figure 3.1).

I had been involved in applying ethnographic approaches to the development of a comprehensive lay typology of risk for HIV/AIDS, noting that this extended beyond

[2] A 'balozi' is the Swahili term for the smallest politico- geographical unit in a village. It refers to ten houses governed by a 'balozi leader' who is elected by the neighbourhood and works voluntarily, reporting to the sub-village leader. In recent years the traditional grouping of ten households has expanded and some balozis can be composed of more than 40 households.

standardised epidemiological categories of 'at risk groups', such as truck drivers, migrants and commercial sex workers (Desmond, Allen *et al*. 2005). I had also been involved in research on the social context for risk behaviour amongst a pre-defined higher risk group of women working in recreational facilities in an urban city (Lees and Desmond 2005; Lees, Desmond *et al*. submitted). The broad aim in both was to explore the socio-structural and socio-cultural factors which may contribute to risk behaviour. Both these studies engaged with a broader concept of risk than that applied more traditionally in the study of sexual risk. At the same time and following several years of collaborative research on adolescent sexual and reproductive health in Mwanza, Tanzania, the MRC had designed a research proposal for this PhD. Given my experience in attempting to locate risk more broadly, I applied for the studentship.

Figure 3.1: The research area in Tanzania

In collaboration with supervisors and my research committee I had pre-defined certain socio-economic and demographic characteristics for the selection of an appropriate research site in which the fieldwork would take place. These criteria were based on combined knowledge of the research area and included:

- A total village population of approximately 3,000 (Sukuma villages range from 2-5,000 inhabitants)
- Proximity to Lake Victoria (to explore the role of fishing and ensure a higher likelihood of Swahili speakers)
- An ethnic majority of more than two thirds Sukuma
- A range of occupations and socio-economic profiles including a greater and lesser reliance on the cash economy and subsistence farming respectively
- Religious diversity (Christian, Muslim and Traditional beliefs)
- Agreement and support of village authorities
- Logistical requirements of a suitable house and accessibility to Mwanza Town

We selected a suitable field site as that of Barakijiji ward, which borders the lake at one end, cuts across the main road connecting two large towns and spreads again into agricultural land and bush. I had visited previously to meet local government leaders and obtain their permission through introduction in a letter from the District. This had followed standard procedures for ethical approval and letters of support from the National Institute for Medical Research (NIMR). My association with this organisation benefited my status during the six months I spent living with the two communities. There had been previous concerns amongst urban residents about the role of NIMR during the colonial period of the 1950s, particularly in discourse related to blood stealing and linked to the, then recent, tertiary referral hospital in Mwanza City (Lees and Desmond 2005). Rumours of adverse consequences of involvement in medical research have also been reported more recently in the Mwanza Region (Nnko 2005).

Having discussed possible negative expectations and the role of prior research in both communities and amongst relevant NIMR staff, there was no evidence to suggest that my association with the organisation would impact negatively on my reputation or research. Rather, this association allowed me to explain my presence in a manner which made sense during initial encounters.

However, assumptions about my role due to my association with NIMR also meant that I was occasionally mistaken for a medical 'expert' and, in this role, received several house calls, particularly during the first few weeks, from individuals who had either heard of my presence or who had actually been referred by nurses from the local ward health centre when they were unable to deal personally with the illness presented. In this way, I encountered multiple forms of illness but was able to do little except explain, apologise and 're-refer' them to a 'qualified' biomedical practitioner. My identity as a '*mzungu*[3]' may have encouraged this medical reputation since the majority of white visitors to the area were generally either related to the church or to health. Over a short period of time as I established greater rapport, my presence became less of an oddity and these types of visits ceased.

3.3 Communication strategies

Since I had been a Tanzanian resident for some years before I embarked on this specific research and following two months of intensive classes, I was able to speak and write well in Swahili. However not having lived amongst regular Sukuma speakers I did not know this local tribal language .This placed me at a slight disadvantage and led to a decision to base myself in the peri-urban centre of Barakijiji, since the rural site, Shambajiji, was predominantly Sukuma speaking. Given a wider ethnic mix amongst my neighbours in

[3] Common name for any non-black person, historically used to describe Europeans and literally meaning 'someone who wanders far from home'

Barakijiji, Swahili was a common language irrespective of my presence and I was thus able to converse with people naturally and immediately in Swahili. This was not the case in Shambajiji with a predominantly Sukuma population. Whilst resident in Barakijiji I found a Sukuma teacher who helped me to prepare linguistically for my stay in Shambajiji.

Even with the employment of a Sukuma teacher, I was acutely aware (and reminded daily when attempting to pursue conversations in Sukuma further than greetings and polite conversation) that I would be unable to interview people unless they agreed to communicate in Swahili. This strategy may have assisted my research but would have been at odds with normative social interactions and for some, would have meant messages were re-constructed. I avoided this potential linguistic bias through the employment of a local, Sukuma speaking, Research Assistant (RA). In so doing I was aware that this too would necessarily introduce an additional interpretive layer but was also a tool to deeper cultural understanding. I was wary of employing an RA too soon and delayed this until I had spent some time in Barakijiji and had slowly begun to develop an idea of the social environment and many individuals within it. I was keen to avoid the pitfall of selecting someone who latched on to me in the first uncertain weeks of my presence since often these have proven to be, as Agar (1996) suggests, either 'professional stranger-handlers' or 'deviants'(Agar 1996; Wight 2006). I was also keen to ensure that the status of the RA would complement my own as 'outsider', 'white middle-class' and 'female'. This meant the employment of a local Sukuma man of a similar age to my own, to provide 'insider' knowledge and a route to wider social networks than I would have been able to access alone. To understand his perspective and situate this within the research, my RA also became a 'subject' and Key Informant and was happy to commit himself to both, sometimes contradictory, roles. In this way, and similarly to Paul Rabinow's experience in Morocco, he provided me with access to the cultural ways of the participants (Rabinow 1977).

3.4 Learning to live a different life

Within the first two months of my residence in Barakijiji I had managed to develop good relations with several individuals in the village and my presence had begun to be accepted, although I remained highly visible. I had been invited to several households and had spent long periods of time with four women in particular, working alongside them and sharing their joys and misfortunes. I had also become a participant in weddings, funerals and other key social events. I spent my time juggling this new found social life with trips further afield, for example to visit traditional healers or key informants, and ensuring I had sufficient time for note-taking. I had also begun to build relations with two households in the second of my research sites, Shambajiji.

I spent less time as a resident of Shambajiji than Barakijiji but was nevertheless able to gain invaluable insights into rural lifestyles and family dynamics through residence with a family. Before moving to Shambajiji I had many discussions with the village chairman requesting his support in locating a suitable family who would be 'typical' of the community but who would also have sufficient space to host a visitor. In using the term 'typical' I am not suggesting that the data resulting from my stay is representative of all households in the village. Of course, the family was unique and the experiences I underwent with them could not be replicated with another household. However, their representativeness was drawn from several social characteristics they held in common with many other households in the area. The household was composed of a husband and wife, his aged mother and their youngest son, who attended the village primary school. All their other children had married and lived separately. They also took care of three young grandchildren who chose to sleep at their home every night even though their mother lived close by. Both adults were engaged in community life. The wife, Pendo, held positions on the village government and on several committees and was a regular church goer. Her husband, Jackson, was less politically inclined but equally socially committed. He

participated in every community-based initiative to improve livelihoods and was the first to contribute his labour or support when other households required it. Both were involved in microfinance organisations and hosted meetings in their home. Socio-economically, the family were better off than some of their neighbours but still poor. They owned land which they used for both cash crop and subsistence farming, and livestock used as insurance for unexpected expenses, and to provide a small but dependable income in milk sales. Their compound was composed of four huts around a central yard and a pit latrine several metres from the main house. Three of the huts were built of mud with thatched roofs and the fourth, where they slept, had a corrugated iron roof. The yard was the centre of family life; family meals were eaten there and the space was often used for visitors and meetings. Children played and goats and chickens roamed. We spent evenings watching the sunset, chatting and exchanging experiences while shelling groundnuts.

This experience involved a greater depth of engagement with daily routines and a real opportunity to become a 'participant' as well as 'observer', since I had no means of escape from Sukuma reality, as I was able to do in my own rented home in Barakijiji. This slightly different approach to the research restricted my time available for note-taking, which was often conducted hurriedly away from the house to ensure privacy. Perhaps because of this commitment to holistic involvement in their lives and to my having been able to establish close relations with the family due to their desire to include me, I very quickly felt part of the household and the wider community. I benefited from this social role and was able to produce rich data during my residence and in frequent visits over the rest of the research period and since. The unique position I was in with regards to Shambajiji was most clearly evident in one particular incident that occurred during the first half of the fieldwork.

Pendo and Jackson were hosting a large microfinance group meeting one afternoon attended by 20 women and five men. This particular meeting had been called because Care International was coming to visit with a group of people who were interested to understand the process of HISA[4] and the problems with the system. We sat waiting for many hours for the visitors to arrive and along with my neighbours I experienced both the desire to receive the visitors and the frustration at wasting my time waiting for them. When they finally arrived I made sure I was very much a member of the group and not an outsider and was accepted as such without question by the community and also by the visitors. Seeing the 'rich foreigners', both black and white, arrive in their land cruisers with their folders and phones from an 'insider' perspective made me more determined to control my own 'image', but their perspective that I was one of them was clear when they complained to me about the lack of respect they were often shown in meetings of this kind.

I am sure that my position as an approved member of both Barakijiji and Shambajiji communities was facilitated by my ability to speak fluent Swahili, my many years experience in Tanzania and my having proven my commitment to live in much the same conditions in order to understand their way of life. Despite this, and given the gendered segregation of women performing predominantly private roles and men public roles in Sukuma society, women were harder to access than men. This was more apparent in Shambajiji than Barakijiji since many more women in the latter lived alone and were financially independent. Nonetheless, my status as a woman and a mother of a young son promoted my position within both field sites and provided a shared experience on which to draw when meeting women. High rates of separation combined with patriarchal inheritance practices made the experience of separation from children a common one and mothers could relate to my having left my son with his father in Mwanza. My identity as a *mzungu* was also beneficial since it eased my acceptance with men and provided me with a route to social activities and conversations normally forbidden to women (Warren 1988;

[4] This is a particular type of microfinance group funded by weekly contributions from members. This money was then borrowed by individuals to cover the cost of unexpected events and repaid with interest over time.

Arendell 1997). Thus, in my role as researcher, I was able to overcome sex-specific prohibitions. As a participant, however, I ensured conformity to these same social rules. In this way, I maintained a careful balance between observer and participant observer through conscious manipulation of my own identity. This led to the collection of a broader range of data than six months of fieldwork may perhaps imply.

3.5 Researching risk: the tools and process of data collection

The research had several objectives which have been described in detail in Chapter 1. Whilst deductive testing of the main risk theories informed the design of a theoretical structure to the data collection, methods were also subject to some flexibility in the development of potential new, data -driven conclusions through the inductive development of meso-theory. Since grounded research on perspectives of risk is necessarily extremely broad I had initially planned to focus on mothers and the risks they were concerned about in relation to their children. However, in my determination to avoid imposing structure and etically-led priorities and to seek to understand situated risks in daily life, this was re-broadened once in the field. This decision was influenced by a realisation that if risk were situated within wider social contexts then the risk perceptions of others would impact on individual notions and behaviours. Since I interpreted risk perception to be constructed through social discourse, it was these discourses I was interested in understanding. These threaded through social relations so that targeting one social group amongst many would have created a biased interpretation or reconstruction of reality. As such I worked qualitatively with men as well as women, the wealthy and the poor and those living in Barakijiji and Shambajiji.

Moreover, in acknowledgement of the heterogeneity of the risks perceived to be salient and the potential for too broad a risk focus, I had expected to narrow the focus of risks once I

had established relative priority. However, the research identified not just the expected heterogeneity of risk perceptions and priorities but also the complexity of discourses which informed salience. The importance of context on dynamic hierarchies of risk perception for individuals again led me to be wary of imposing etically defined structure. Whilst I categorised risks into substantive groupings and included particular relationships between risk groups in the analysis, I adhered to a broader focus during the data collection period, in order to ensure recognition of all risks as situated and conceptually related to other risks.

None of this would have been possible had I approached the data collection using quantitative methods. Instead, the main source of data on which this thesis is based was qualitative and unstructured using participant observation. Additionally, I obtained more structured data through group discussions and in-depth interviews (IDI) using life history approaches. These three methods, each of which is discussed in more detail below, provided the majority of the data.

3.5.1 Participant Observation

Participant observation formed the primary source of my data since I was investigating both normative behaviour and risk perceptions and situating these within the context of actual behaviour. One of the greatest strengths of this interpretive method is the ability to recognise how the contingencies of daily life and social interactions shape actual practices which are often at odds with stated norms and articulated risk perceptions. In this way, participation became a useful tool both for experiencing and observing reality. It provided me with an insight into the hardships of daily chores, the range of lifestyle options available to villagers and first hand experience of unexpected occurrences, events and accidents. As a participant I was able to steer informal conversations to discuss these events, revealing the discourses used to explain them and providing a better understanding

of how risks were perceived. I was also able to observe and note inadvertent transgressions of culturally appropriate behaviour which also revealed social norms.

The complexity of risk perception can only be understood through such in-depth '*thick description'* (Geertz 1973) and the practice of ethnographic and qualitative techniques. This is because the validity of data obtained using participant observation is likely to be greater than that collected through other methods since activities and conversations are understood *in situ*. I believe that this provided a closer representation of reality than is possible using other techniques. Data obtained through this method was also not reliant on informants' conscious awareness of their own lives and so was less susceptible to desirability bias.

I aimed to adapt data recording methods for participant observation suggested by (Dewalt and Dewalt 2002) and (Bernard 1995). These included the use of jottings as mnemonic devices (Emerson, Fretz *et al*. 1995) recorded either overtly or covertly, depending on the attitude of the participants, during the course of the day. These were then expanded into descriptive field notes detailing events, activities and conversations, on most evenings. Alongside this practice I kept a separate, chronological, log book of activities, both planned and experienced. This second notebook was also used to note theoretical and conceptual reflections on the research. Whilst I had also intended to keep a daily field journal as an outlet for my personal reactions and concerns, this instead, became bracketed notes within the main field notes since it was often easier to interpret events whilst immediately measuring my own reactions and their possible impact on the ethnographic description.

3.5.2 Focus Group Discussions

It is recognised that social norms may be elucidated through group discussions, since the main audience for participants' accounts are their own peers, rather than the researcher. I carried out a total of eight group discussions with villagers and one with the medical staff at the ward health centre. The community group discussions were composed of between six and eleven participants, and took place in locations selected by the participants, taking into account issues surrounding recording quality and seclusion. These ranged from my home in Barakijiji to under a mango tree in Shambajiji. Details of group composition are provided in Appendix 9.

I recognised that the dynamics of group discussions were different given differing group compositions. I was also aware that gathering those who knew each other prior to the group discussion could be beneficial since group interaction would consequently be more natural and individuals would be able to confirm or dispute peer contributions. However, this approach also had potential limitations in restricting individual freedom to divulge truths about sensitive issues. Since I was interested in community norms with regard to risk perceptions, I felt the advantages of working with people who knew each other outweighed the shortfalls and I drew on local social networks to access groups of people willing to participate in group discussions. Thus, I requested individuals in Barakijiji and Shambajiji with whom I had established a good relationship to seek out their friends and request them to take part.

I facilitated the majority of these group discussions in Swahili and this role allowed me the freedom to pursue relevant issues as they arose. However, since I aimed to develop the recorded discussion to resemble an informal and natural discussion I stipulated that people were free to converse in either Swahili or Sukuma, as they felt more comfortable. This minimised the potential for a constructed answer-response dialogue between myself as

facilitator and the participants. However, it also meant that at times I was unable to follow the flow of the conversation until my RA provided a brief overview in Swahili. I tried to avoid this as much as possible since it detracted from the discussion. Given this tension between the desire to understand and follow up comments and that of minimising construction and encouraging natural conversation, some of the FGDs moved between Swahili and Sukuma and between myself and the RA as primary facilitator. In turn this balanced my assertion of control with participant direction of content and I believe, optimised the naturalistic truth of the resulting discussion. Group discussions were recorded after participants were provided with information about the research, given opportunities to ask questions and provided their written informed consent. A pre-designed and semi-structured series of topics was used which is presented in Appendix 1. The greatest disadvantage of this approach was that, despite recording socio-demographic characteristics of each participant, I was unable to match speech to individuals during the analysis and thus the discussions had to be analysed as the interpretation of a whole group rather than as individuals within it. This is a common limitation of this group approach but one which was controlled by the additional inclusion of individual data through in-depth interviews.

3.5.3 In-depth Interviews

In addition to group discussions and the participant observation data, detailed case studies were obtained through in-depth interviews using life history approaches. These were piloted prior to the fieldwork with a sample of women in Mwanza City. This process benefited the development of the IDI topic guide, identifying what did and did not work. Specifically I explored

- My ability to undertake an interview in Swahili
- The appropriateness of terms used to describe ‘risks’

- The plausibility of addressing risks as situated within a life history narrative
- The plausibility of addressing risks abstractly through directly phrased questions
- The flow and linkages between questions
- The length of the interview checklist and consequent duration of the interview

The final outcome was a topic guide (see appendix 2) which was minimally structured in the attempt to understand risk perception and behaviour without imposing a priori categorisations that would impose my own risk priorities over those of the participant (Fontana and Frey 2005). Since the notion of risk has been found to be difficult to discuss in the abstract or in general (Tulloch and Lupton 2003), the use of life history approaches based on narrative or biographical inquiry proved useful in revealing which risks were given salience by particular individuals, since it provided participants with opportunities to create meaning in the retrospective consideration of past events (Chase 2005).

I recorded a total of 32 in-depth interviews with individual participants. Appendix 7 details specific socio-demographic characteristics of each individual. In addition, I carried out a further four recorded interviews with patients at a traditional healer hospital and four interviews with Traditional Healers (TH). The decision to spend time with TH was informed by the gradual realisation that their role in both the prevention and retrospective interpretation of misfortune was conceptually linked to the study of risk. I conducted two group interviews with older members of the community to increase my understanding of the socio-political history of the local area. All these were conducted in either Swahili or Sukuma or both and recorded to be transcribed and translated to English. Each was also preceded by a formal process of written consent.

3.5.4 Sampling

Given the limited time period of six months for this research I was under pressure to use a more deductive approach than the traditional anthropological method of immersion in social life and interest in a wide range of social factors which I could then make sense of. Thus despite my desire to avoid the imposition of externally-driven structures on the process of data collection, it was necessary to maintain a loose strategy for sampling for both informal PO based discussion and more formal, semi-structured narrative interviews. Furthermore, despite the need to 'lose and re-find oneself' in the culture as a vital 'rite de passage' for participant observation, more structured interviewing techniques required a sample frame. My strategy was therefore to profit from the benefits of 'ethnographic chaos' whilst maintaining some direction. As such I applied a combination of purposive, and snowball sampling (Bernard 1995). Criteria for purposive sampling were sex, age, area of residence and main occupation. I also included individuals who had experienced recent misfortunes such as illness, deaths or house fires and those identified as experts in particular fields of local knowledge such as *mchango* (intestinal worms), traditional and biomedicine. Purposive sampling was appropriate to gain deeper insight into risks perceived to be of particular importance whilst snowball sampling enabled me to draw on the benefits of established relationships to ensure internal validity and reliability of the data gathered.

When I attempted to select individuals outside of this sampling strategy, the data I was able to collect lost much of its validity since individuals were not keen to disclose the truth when I was not well known or trusted. I carried out two interviews with couples who had experienced a recent loss of a child, both of whom had been selected and arranged by my RA. The following provides one example of how a non-established relationship with the informants decreased data validity.

Jalaad and Zena were a young Islamic couple who lived in Barakijiji where they ran a small shop. They had five children at the beginning of the research period but lost two, the second death occurring during my stay in the area. My RA took my desire to speak to people who had recently suffered misfortune seriously and set up an interview with them, although I had only briefly met Jalaad at his shop one day. This meant that I had not had the opportunity to establish any rapport before the day of the interview. Jalaad met me in the village centre and took me to their home where I met Zena for the first time. We sat in the communal space at the back of their rented home since this was where they chose to hold the interview. In discussing the death of their second child, they referred to the similarities with that of their first deceased child. They claimed that the hospital had diagnosed malaria but that following medicine the child's eyes had swollen up. This symptom, they then claimed, made them reconsider the diagnosis as *mchango*, a local, physical though biomedically unrecognisable disease. During the interview they stated that this was their interpretation of the cause of both deaths. Shortly after the interview took place, I heard from others that they had left secretly in the middle of the night in response to what they had suspected all along; that all the misfortunes, including a recent illness of Zena's, had been caused by a jealous neighbour through witchcraft. I never saw the family again. The same incident was in this way explained to me in different and contradictory ways. The couple themselves attributed their misfortunes to first biomedical and then traditional illnesses. Others, whom I knew better, claimed that the couple suspected witchcraft from the beginning. As well as highlighting the complexity of the data, the experience drew me to conclude that issues of social desirability and concerns about my own trustworthiness would hamper the collection of reliable data. I decided to undertake interviews only with those with whom I had already established a sufficient level of rapport.

This example also highlights the biases of villagers in terms of disclosure. There were particularly sensitive risks which individuals were initially reticent to discuss with a *mzungu.* The most obvious of these is that of witchcraft. Cultural inhibitions towards this topic were gradually eroded over time and as I established greater rapport with certain individuals they both disclosed their own perspectives on witchcraft and encouraged others, who knew me less well, to recount more accurate presentations of their fears during interviews and informal discussions. In fact, over time, informal discussions were coloured with accounts of personal experience or witchcraft related gossip. Towards the end of the research, only those who had been identified by others as witches, continued to deny to me their belief in its reality.

Religion was also subject to such cultural inhibitions and many individuals exaggerated their religious roles early on in our acquaintance. It was only over time and during repeated conversations that contradictions in actual attendance and beliefs were discovered. Finally sexual behaviour was a topic of personal inhibition. Whilst many felt at ease discussing generalised sexual behaviour and that of others, they were initially reticent to discuss their own or their partner's behaviour. Over time and with greater rapport, women began to tell me of both experiences and their fears of, for example STDs. This attitude extended to the disclosure of pregnancy, even amongst those who had become close enough to discuss witchcraft and sexual behaviour.

3.5.5 Other data collection tools

Other strategies for data collection proved more successful. Since one of my objectives was to establish to what extent social position affected an individual's risk perceptions I was interested in establishing which social characteristics contributed to enhanced social reputation as well as identifying emically defined social stratifications. Consequently I

designed a card game based on individuals known within the community but unrelated to the group members. These individuals were selected to represent particular occupations and socio-demographic categories such as fishermen, businessmen, female bar workers, farmers etc. There were obviously potential ethical problems with this strategy which essentially exploited the benefits of social gossip to investigate social position. However, I was careful to ensure participants that discussions were confidential and to ensure with the help of those who had identified the group, that individuals selected for the card game were widely renowned and unrelated to members of the group. I asked groups to rank them in order of social reputation at the end of the focus group discussion. After ranking the individuals, I recorded my questions and their responses on the reasons for respective social positions. This strategy was possible given the manageable size of each community and the fact that relations were generally over short distances and based on face-to-face interactions. This technique was more effective than abstract discussion since it drew on social gossip. From recorded responses I was able to develop a loose framework of which factors heightened an individual's social status and which characteristics defined social position. This was then verified through data triangulation.

Having successfully used ranking exercises to understand social position, I applied similar techniques in asking participants to rank the risks they raised during in-depth interviews. This proved less successful since it involved the reconstruction of concrete experiences into abstract risks which they then tried to rank in order of priority. The failure of this strategy was an indication of the contingent nature and complexity of discourses that inform risk perception and the difficulties inherent in quantifying or ranking perceptions. After several failed attempts, I abandoned this approach.

3.5.6 Limitations of the data

The research approach adopted had important limitations. The opportunist nature of data collection in participant observation is inevitably vulnerable to non-systematic sampling and is not representative. This disadvantage was minimised through data triangulation and verification by different participants, method triangulation to enable cross-validation of any conclusions and an attempt to obtain as 'representative' a sample of the population for IDIs as was possible through purposive sampling. Additionally, I accept that the primary data collected had already been interpreted and subjected to a first stage of reductive analysis even before it was recorded since I, as participant observer, selected what events to attend and what material phenomena, interactions and conversations to note. My subjectivity was, thus, a constant companion during the data collection. Maintaining an awareness of my role as researcher and participant was integral to managing this potential limitation. The following section explores personal experiences during the research and their effect or my effect on the research results.

3.6 Managing perceptions through participation: Personal experiences and challenges in social relations

As a female, white, western researcher entering the field to live alone for six months, I was advised by Tanzanian colleagues to ensure the adoption of certain behaviours and strategies to minimise my own vulnerability to risk in the research site. These included medical advice such as the use of mosquito nets and prophylaxis and boiling drinking water. Their advice also included strategies to minimise my exposure to social risks such as ensuring doors were locked at night. I had to complete risk assessment forms for the MRC, designed to provide an estimation of the risks involved in prospective fieldwork and to avoid future possible employer litigation. In both cases, I followed the advice and as a result suffered few medical problems during my residence in the villages.

Whilst the information and assessments had been helpful in preparing me for 'fieldwork', defined broadly as work away from the office, none of these discussions had addressed two issues that I was later to realise were intrinsic to the practice of ethical research and my acceptability in the field. The first was our collective failure to consider, not the research area's effect on me, as empowered, relatively speaking, economically wealthy foreigner, but rather the effect of my presence and practice on those with whom I would become involved. We had previously considered strategies for how I should present myself, agreeing that I would endeavour to be open about my identity and opinions but avoid expressing beliefs which would be likely to undermine my rapport with participants. We had also held lengthy discussions with colleagues in Tanzania and at the MRC SPHSU about the issue of financial rewards for participation and had agreed that stringent observance of local norms would be important. We recognised that in the short term the introduction of cash incentives would be likely to create heightened expectations of the researcher and future outcome of the research and to bias involvement in more formal data collection techniques. At the same time it was important to demonstrate gratitude and it was agreed that participants in formal methods should be compensated for their travel costs and provided with refreshments during and after the interviews. Given these pre-fieldwork decisions, I was determined to demonstrate to the community that I would not pay for information and that all participation, either formally or informally, would be voluntary. I maintained this stance throughout much of the fieldwork period but as time progressed and in retrospect, I realised that decisions concerning financial rewards needed to be more flexible. In fact, in a few instances, my inflexibility may have negatively impacted on my status in the field. One particular incident provides some insight into the subtleties of social relations and the expectation and provision of 'contributions'.

Travelling through Shambajiji with my RA, we were approached by a group of male villagers, many of whom we knew personally. They had been collecting mangoes from a large tree at the edge of a ridged, cassava field. They were in good humour and asked me for a donation to purchase local alcohol. In my eagerness not to appear as 'a wealthy *mzungu'* I refused, explaining that I had little money to give away and was a poor student. On the surface, they didn't seem concerned about this refusal and turned to my RA, a local and very well-reputed, though by no means wealthy, member of the community. He reached into his pocket and produced 1,000TSh and gave this to them, telling them to enjoy their afternoon. They took the money and laughed, gleefully moving off to the nearest locale for local beer. My RA didn't react but I raised the issue, feeling I should explain why I had refused and keen to explore why he had not. His response demonstrated to me the role of mutual assistance and the sharing of property as a route to heightened social reputation. Whilst my refusal to give would not have been taken negatively and indeed, later during the fieldwork I got to know a couple of these men well and was able to interview them, interpreted according to local cultural meaning, I had lost an opportunity to increase my social reputation and provided my RA with a route to furthering his own. As a direct consequence of this experience I took a conscious step towards deeper cultural engagement and drew on this in making future financial decisions in the field.

The power dynamics inherent in the research were not only related to differential economic positions. I was particularly aware of two things. Despite my willingess and desire to live a life as similar as possible to those around me, no matter what extremes I went to, I was always aware that I could leave at any time and that the difficulties and hardships I experienced, were temporary. The fact that this was not the case for the research participants meant that careful adherence to ethical principles of ethnographic practice, and the role of both data confidentiality and the level of truly informed consent to participate, was vital. Through the implementation of a complex coding system known only to myself,

password protected electronic notes and the storage of written notes in a secure and locked location I was able to maintain the anonymity of my informants. I was also careful to avoid any inadvertent breaches of confidentiality during normal 'reciprocal' exchange of gossip in informal conversations and never shared information provided by other participants unless they were aware that this would be disclosed. The issue of informed consent was somewhat more complex since the greatest strength of participant observation is the ability to observe people when they are not conscious of being researched. The more participants are reminded that they are participating in research the more the strength of the method is undermined. However, ethically, this strength is also potentially its greatest weakness. I was aware that by triangulating formal and informal methods, participant awareness that they were being 'researched' all the time was undermined since they were more likely to associate formal methods than informal conversation with the research. Due to this, I interpreted informed consent as a process (Fluehr-Lobhan 1994) and endeavoured to remind people that anything they said in front of me could be used as 'data'. This was more successful with some participants than others and I acknowledge that absolute consent eluded the research and instead I maintained a balance between my own need to benefit from the strengths of participant observation and the ethical principles of working with 'informed' participants.

As an educated western outsider, enculturated within a tradition of gender equity, I had to address my own bias against men who naturally expected signs of respect from women, regardless of their age. This was evident both in vernacular systems of address and the requirement of women to genuflect when greeting men both younger and older than themselves. I found it difficult to accept that an old woman should show such respect to a male youth and, whilst readily conforming when greeting men of my own age or older, was rarely able to do so with male youth. This gendered inequality was also evident during meetings. I attended a government meeting in Shambajiji one day in a simple office

with few benches or chairs. The meeting was composed of mainly men with two women, one of whom was pregnant and both of whom arrived in time to sit on a bench. I watched, horrified, as they both gave up their seats to men arriving late. Such experiences increased my gender awareness during the research but passed, unremarked by my RA. Despite my position as a woman, I have already described my ability to pass, by virtue of my outsider status, as an honorary man. This meant that I was less subject to such social constraints. It also demonstrates the relationship between control over the research and power. No matter how I chose to be directed by the participants in terms of risk perceptions, the ultimate decision about what to write and how to present it, was entirely my own. Thus, whilst it may have been argued by some that power is often confused with researcher responsibility whilst in the field (Olesen 2005), ultimately the main voice to be heard was my own and despite the foregrounding of emic risk perceptions through the research, these are necessarily retranslated and repossessed by my own etic perspective.

The second issue not taken into account during fieldwork preparation was the range of risks I was likely to face. Thus, whilst we had predicted health risks and discussed power relations, we had not considered more locally specific risks such as exposure to the dangers of offending neighbours and witchcraft. As a participant observer, I was prepared to engage in local lifestyles and social behaviour to demonstrate solidarity with the community and establish trust through taking similar risks (Wight 1993), albeit with the advantage of a way out if the risks got too great. However, I was not prepared psychologically for deeper engagement in the worldviews and systems of meaning of the local community. As Saukko (2005) has argued, it was important to take local realities seriously and engage culturally with those around me (Saukko 2005). At the same time, I was unwilling to take a step further and become part of that reality, subject to the same codes of meaning and exposed to the same social risks of jealousy expressed through witchcraft. This was for two reasons. First my prior beliefs as an atheist precluded a belief

in supernatural forces such as witchcraft. Second I was aware of my difference from villagers and the fact that I would be accepted at certain levels but was unable to become more than an accepted outsider.

This perception was severely tested towards the end of the research period. I had committed a social error in neglecting to give a plate of food to my neighbour when I was entertaining one day. That night I was subjected to inexplicable terror both in dreams and whilst awake and the following morning was visited by my offended neighbour to ask, for the first time, if I had slept well the previous night. The nature of the experience reflected common accounts of many villagers during the research and when explaining the occurrence to Tanzanians from elsewhere after the fieldwork ended, they were all convinced that I had been 'played with'. I was initially reticent to include this event since I am still grappling with rational explanations. Interpretation proved difficult and I was unable to conceptualise the event by drawing on previous abstract knowledge and experiences. I became, in the last month, 'native' in terms of my relations with others and their desire to test my susceptibility to witchcraft. Exposure to these inexplicable experiences in the field challenged any previous notions I had possessed on the nature of religion and the possibility of supernatural existence. In visiting a traditional healer in a location removed from the field sites, I received confirmation of the experience from an individual who possessed no prior knowledge of the area, or of my own experiences there. This social experience provided me with a unique, subjective perspective of the risks I was attempting to objectify and contributed to a closer understanding than would otherwise have been possible. Since qualitative research necessarily contains such a subjective element, these personal realisations have contributed to the depth of the data. However, the analysis itself was based on rigorous data coding, summaries, identification of patterns in themes and re-examination to identify exceptions and uncover reasons for these. This process is described in detail below.

3.7 Seeking explanation: post-fieldwork data analysis

Since the research design for the project was both driven by deductive testing of accepted social theories of risk perception and inductively shaped through the process of knowledge accumulation whilst in the field, the analysis drew on different techniques associated with each of these methods. These will be described in detail below.

Formal data collected through group discussions and in-depth interviews were transcribed and translated from Swahili or Sukuma to English by a team based at NIMR. The final transcripts contained both the original and translation to ensure accuracy in the meaning of terms between languages. This verification process was reinforced by my quality checking of each transcript in liaison with my RA. These documents were then imported into QSR NVIVO 2.0 software. The field notes were originally produced in English and were directly imported into the same programme.

A coding list with full descriptive details was developed using a pilot set of five in-depth interviews and two focus group transcripts. Each document was coded manually on the hard copy and then transferred to the electronic version. Case node attributes were recorded for each informant within NVIVO and a memo written for each document identifying the main themes it contained. On completion of the pilot set of documents the coding list was re-drafted to include categories and themes that had been omitted initially. This was finalised in NVIVO as a tree coding structure. This redrafted coding scheme was then used to manually and electronically code the rest of the imported FGD, IDI and PO data.

A list of all informants providing data had been previously compiled in the field. This had contained coded details of 209 informants. At the same time a spreadsheet was designed which contained socio-economic and demographic details of each informant. Extent of

such data on individuals varied and a list of the 40 people about whom I possessed the most information on risk perceptions, life experiences and social characteristics was included within a separate spreadsheet with more detail. This shorter informant list became the basis for the bulk of individual case studies used during later stages in the analysis. These included 36 IDI participants, some of whom were also integral to PO data and who were key informants. The last four were individuals who became key informants and with whom I had many opportunities to converse informally but who never participated in a formal, recorded interview. The spreadsheet data was then linked to NVIVO and all individual relations with others such as mothers and daughters or husbands and wives, in this list were recorded.

On completion of this structured coding system, I returned to the data by examining specific themes and sub-themes and their relation to each other. Such themes included substantive risks divided into social, supernatural, health, economic and environmental risks and those related to children and motherhood or fatherhood. They also included main themes such as social organisation and stratification, lifestyles, occupation and livelihoods, family and home, health and developing theory. The latter included sub-themes as conceptual categories grounded in the data, such as control, predictability, knowledge, aversion strategies and social position. The full coding structure is included as appendix 6. I attached a memo to each code which included a definition and examples of things which should be included. This first stage of analysis was then written up in a series of thematic, descriptive reports which summarised with examples these main themes and noted contradictions. These reports were integral to the analysis process since they integrated descriptive data with emerging themes and highlighted discrepant cases which could then be explored. Data for these reports was drawn from both PO and formal interviewing methods as well as background data obtained from key informants both prior to and during the fieldwork period. Although verified through triangulation with more structured

methods, much of the PO data was based on my key informants, following established anthropological practice to find a few informants who provide the bulk of the data (Evans-Pritchard 1973; Wight 1993).

Once the main themes were identified, I then returned to the data to examine risk perceptions. I developed a definitive list of all risks prioritised by informants at any stage of the research, noting whether these were described as abstract risks or as embedded within actual experience. I also quantified frequency of occurrence and linked this to social characteristics of those who raised each risk. From this I developed a framework for the 40 case studies described above. This detailed framework described key characteristics of each individual and the risks to which they gave salience, describing the wider context for each. This framework is included as appendix 8.

The final stages of analysis linked all these steps together. Using a process of constant comparative analysis (Seale 1999) I identified which risks were considered salient in which situations by which individuals. These examples were then linked to broader themes within the data to identify the principle discourses affecting risk perception. I drew on both the thematic reports and the detailed risk perception framework to identify conceptual themes such as the ambiguity of risk perception within social relations and the cases which contradicted prevalent trends. When such contradictions occurred, I returned to the data to re-situate the findings within the broader context. This approach strengthened the validity of the conclusions since it ensured that these were not based on '*a few well-chosen examples*' (Silverman 2000) but were instead representative of the breadth of data representing that particular sub-theme. Having identified themes and social discourses affecting risk perception, I returned to the framework to identify specific case studies which highlighted the argument for use as examples in the thesis. Given the nature of qualitative interpretations, I acknowledge that the interpretation of the data is constructed

(Denzin and Lincoln 2005)) and that the results may have been interpreted differently by another researcher since '*there is always the possibility that other interpretations are possible*' (Seale 1999). However, I have relied as much as possible on direct (translated) quotes in the results that follow and these provide reliable evidence of the arguments I present. Thus, whilst I acknowledge that this analysis is an interpretation of the data, I have confidence that subjecting the results to review by the research participants themselves will confirm the accuracy of this interpretation of risk perceptions within this particular locale in north-western Tanzania.

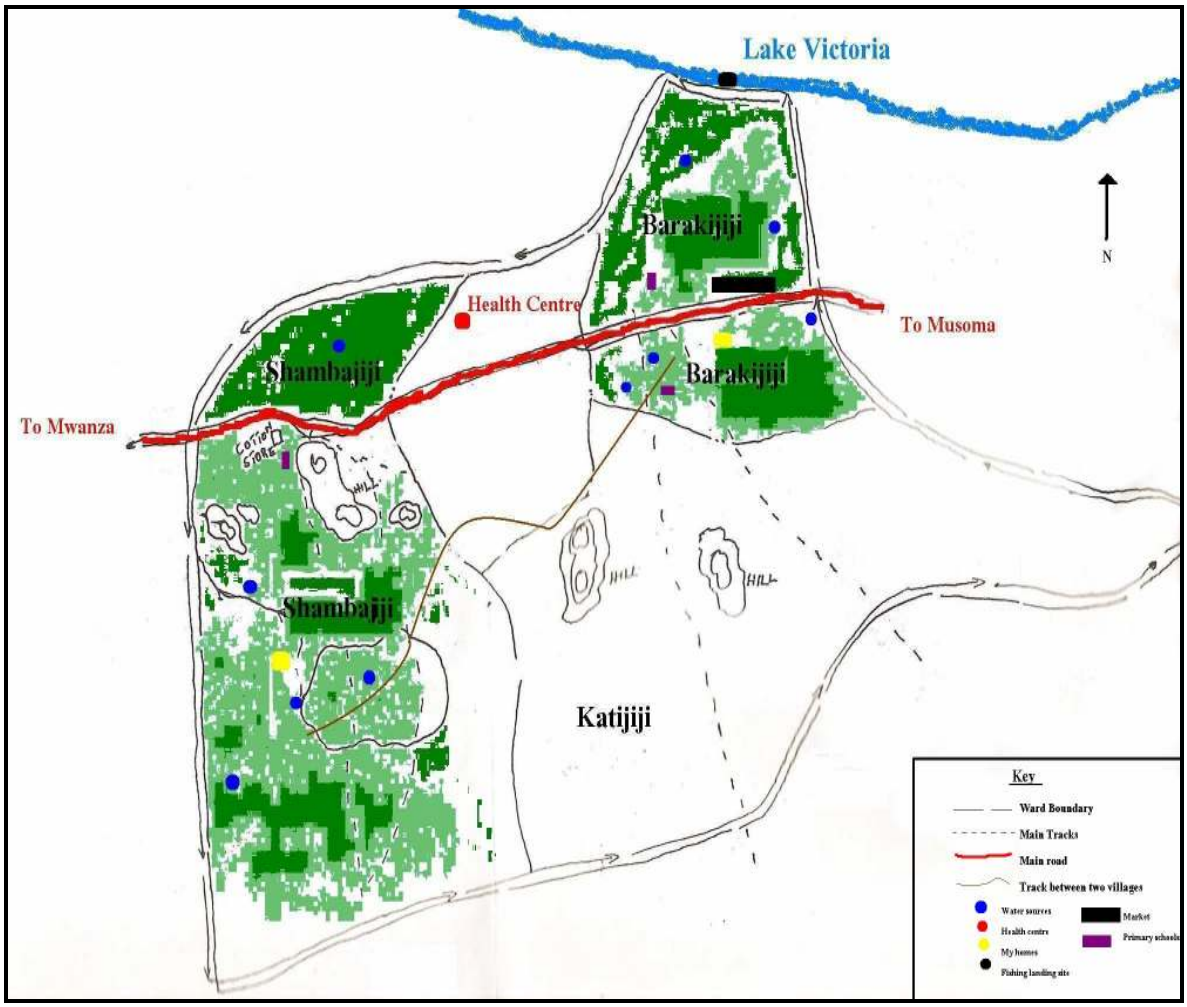
The research was approved ethically by the Medical Research Coordinating Committee and the Commission for Science and Technology of Tanzania as well as the University of Glasgow Ethical Review Board. The results of the research will be disseminated to the local community as well as more widely in Tanzania and elsewhere.

Chapter 4: A comparative ethnography of two field sites

4.1 Geography of the field sites

Barakijiji ward is on the south-eastern shores of Lake Victoria, 35 kilometres from Mwanza, on the primary tarmac road to Musoma, approximately half way between Mwanza City and Magu Town, the regional and district capitals respectively. It is composed of three villages: Barakijiji, a peri-urban village and ward centre which forms one of several centres situated at intervals along the main road, and two rural villages: Katijiji and Shambajiji. Barakijiji is the only village in the ward to adjoin the lake directly at one end, approximately two kilometres from the centre along a wide track accessible by car or bicycle. At this north-western end, the shore-side market gardens turn into rice paddies and agricultural land with scattered homesteads, gradually increasing in density towards the centre where households are compact and give way to shops, a popular Sunday market and eventually the main road. Crossing this, houses gradually give way to agricultural land where Barakijiji ends and Katijiji begins. In contrast, both rural villages in the ward have scattered homesteads separated by fields of agriculturally productive land. These are accessed by narrow bicycle paths which lead through rocky outcrops. The outcrops are said to shelter packs of hyena which raid livestock at night. Shambajiji is smaller both demographically and spatially than Katijiji, and, at two and a half kilometres from the ward centre, it is more peripheral than Katijiji. In seeming contrast to their rurality, both Katijiji and Shambajiji are traversed by the main road, but whilst this has increased exposure to passing traffic, neither has exploited this to augment economic opportunity. This is in stark contrast to Barakijiji, where the road has increased economic and social opportunities. It also forms the political and administrative centre of the ward and whilst many residents of both Katijiji and Shambajiji travel regularly to Barakijiji, the reverse is rarely true.

Figure 4.1: Overview of Barakijiji Ward



4.2 Economic landscape

4.2.1 Agricultural livelihoods

Agriculture is the foundation of both rural Shambajiji and peri-urban Barakijiji society. Amongst the majority of ward residents, long-standing perspectives confirming the centrality of agriculture to identity persist until today, despite the changes wrought in agricultural practice throughout recent history. The practice, however, has evolved through improvements in technical skills, crop varieties, and increasing involvement in a cash economy. Despite widespread changes amongst peasant farmers in sub-Saharan Africa, from subsistence to market engagement, in which land, as well as produce, has

become a commodity (Iliffe 1979; Freund 1984; Seymour-Smith 1986), the data demonstrated that the centrality of land to identity has remained relatively unchanged. An '*ordinary'* person in Barakijiji Ward is still one who cultivates, and the perspective that '*without cultivating you can't eat*' [FGD 310106 CMAFE] dominated both those who farm and those who do not. For example, names prevalent in the area situated the birth of children within the agricultural season, such as *Magesa* (female) and *Magese* (male) meaning one who is born during the harvest, and children were taught the value of agriculture and participated in heavy agricultural labour from the early age of seven. Table 4.1 details acreage by crop type in both villages. Obvious errors in the data are highlighted but despite inaccurate reporting by the Ward Executive Officer (WEO), the dominance of agriculture is undisputed. Whilst Barakijiji contains three times more households than Shambajiji, production of principal cash and subsistence crops amounts to only twice or even less than that in Shambajiji. This reflects a greater availability of land in the latter and greater economic opportunities for alternative income sources and lifestyle choices in the former.

In Shambajiji the agricultural cycle dominated all spheres of social life, with attendance at government meetings and community development projects, such as digging watering holes for cattle or cleaning traditional wells as vital sources of water, being subordinated to the demands of agricultural work. Further, social events, such as weddings and '*ngoma*[5] dances', were usually delayed until the end of the harvest season between June and August.

[5] 'Ngoma' is the Swahili word for a dance or drum. Some suggest their origin to have been through cooperative farming groups who travelled from farm to farm and who used singing and drumming to maintain their energy (Gunderson 2001). Whilst these groups exist, Sukuma dancing is not limited to agricultural work although the competitive dance season is scheduled from June to August when people have free time and can celebrate their new supply of food. Two festivals in particular are prominent in the area, Saba saba and Nane nane, both national holidays to commemorate farming. Other non-competitive dances may take place at other times of the year, especially amongst the young (Bessire 1997).

Table 4.1: Reported acreage by crop type in Barakijiji and Shambajiji

Village	**Barakijiji**	**Shambajiji**	**Totals**
No. Households	1004	314	**1318**
Cotton	558.4	*251.2*	**809.6**
Sorghum	23	25.4	**48.4**
Millet	30	27.2	**57.2**
Rice	122.4	100.4	**222.8**
Cassava	279.2	*251.2*	**530.4**
Sweet Potatoes	199.6	92.8	**292.4**
Beans	26	30	**56**
Cow peas	24	29	**53**
Green grams	28	12	**40**
Lentils/chick peas	2.5	18.4	**20.9**
Groundnuts	16	25	**41**
Maize	*21.6*	*28*	***49.6***

Source: Ward Executive Officer, Barakijiji (2004)
N.B Figures in italics highlight reporting errors in the data

In contrast, many in Barakijiji considered non-agricultural business to be a more stable and profitable income source. Some of those involved in alternative business have sold their land to invest in alternative income earning activities such as bars or shops. Others arrived in the area as outsiders, taking up salaried positions as government workers, or had been led to the area by their ancestors to practice traditional medicine. However, the nature of a complex peri-urban economy founded on agriculture means that dependence on unpredictable rainfall and seasonality of farming is not limited to agriculturalists alone. Seasonal price fluctuation affected food prices and, consequently, households dependent on a cash income. Mothers in particular suffered from the burden of this uncertainty; hunger and drought in some cases led to increased tensions in the household and it was reported for families to break up under such stressful circumstances. A difficult season was also considered to exacerbate incidences of theft. On the other hand, a successful harvest season meant a knock-on effect for other livelihoods. For example local bars profited from generous spending by men. Whilst the majority of livelihoods were adversely affected if the rains failed, a few individuals involved in large-scale cash crop farming were able to stockpile produce to exploit difficult times when prices soared. Thus

for a small minority, livelihoods were also embedded in agriculture but in counterpoint to the majority. Resultant tensions between extended kin were regularly managed through food provision, especially if children were hungry.

Despite some errors in reporting data presented in Table 4.1, it was evident that the majority of households in both villages grew maize and cassava as principle subsistence crops. Cassava was considered more reliable since maize was described as a '*game of chance*' ['*kubahatisha'*]; highly rain dependent, and least able to withstand drought, being the first to fail when the rains stop too early. The term '*kubahatisha'* was used frequently to describe agricultural risk taking. The term is derived from the Swahili word '*bahati'* which means 'luck or 'chance' but '*bahatisha'* inverts the meaning and describes a 'hazard' or 'risk'. The verb thus becomes an active risk-taking or chancing one's luck. [See also Chapter 5 for more examples of uses for this term]. Cassava takes longer to mature and is less nutritious. It is able to withstand long periods of drought and can be harvested slowly over long periods. Cassava forms the basis of the staple diet of the Sukuma as '*ugali'*, although this is often mixed with maize. The social and economic value of these crops extended beyond their role as subsistence. In a traditional internal exchange system, both could still be accepted as payment for services, such as traditional healers, and as contributions at funerals.

Cotton is still considered a profitable source of cash income and is grown over larger areas than rice, which is more dependent on regular rains However, the popularity of rice is increasing as a cash crop since the period between planting and harvest is shorter than that of cotton, and it requires less labour and pesticides, though more water. Larger rice producers and many young adults, particularly in Barakijiji, were investing in the rice import and export business between the Kenyan border and the rural hinterland, and since rice can be stored for long periods, profit could be maximised. I was informed that small-

scale rice producers were less likely to sell for cash if the year had been bad, instead using the rice for household consumption.

More traditional crops such as millet and sorghum were still grown in both villages,, particularly Shambajiji, where people were more dependent on subsistence crops. Sorghum is rarely a cash crop and reduction in production has often reflected a trend towards closer involvement in the cash economy (Iliffe 1979). External government advice had little influence over agricultural decision-making in the area. Through the Agricultural Extension Officer the government is trying to promote rape seed and sunflower production for cooking oil, but neither of these crops has been widely adopted. This may be a consequence of the recognised value of local knowledge in farming strategies or a result of the strained social relations that exist between farmers and the government representative. Individual judgement dominated decisions about multi-cropping, soil regeneration strategies and seasonality, whilst external advice was sought in devising additional income earning strategies through, for example, the adoption of tree planting.

Despite the fact that a small number of households had sold their land to invest in alternative income strategies, for the majority land remained highly valued. Most farmers, particularly in Shambajiji, possessed similar acreage except for the extreme poor and conversely the extremely wealthy. This may be attributed to the limited role of the cash economy which research participants felt was likely to change landholding in the future. Consequently, size of landholding did not reflect relative wealth or status in either village, but the way in which the land was exploited did. Subsistence crops were generally grown by anyone with access to land, whilst market gardening of small vegetables was more common amongst youth and dependent on a regular supply of water. Greater reliance on subsistence farming and stockpiling produce controlled exposure to hunger in Shambajiji, whilst more diverse strategies, embedded within a cash economy, helped to reduce risk

exposure in Barakijiji. Subsistence crops were rarely sold for cash since the value of stockpiling food outweighed that of cash income from agriculture. For those able to invest in them, cash crops provided access to cash income and for those less affluent, there was a greater dependence on daily farm labouring for petty income.

Some people had been made landless involuntarily, as a consequence of unpredictable events. Generally, these people continued to base their livelihood on agriculture, borrowing land from others in their social network, often for free. The loan period for land was cited as two years, since this is the maximum amount of time required to harvest subsistence produce (cassava). Alternatively, many landless residents resorted to daily farm labouring similarly to poorer subsistence farmers. But this was often hard work for relatively low levels of pay. Rates were always open to negotiation, which enabled employers to exploit competition for work. Due to an excess of labour supply there was little economic value associated with the ability to cultivate and agreements were contracted with little heed to government directives on minimum wages. Individuals worked either independently or in groups, depending on the type of work. Even poorer households prioritised hiring ***buganda***[6] or individual farm labourers, since this provided a useful source of assistance and speeded up cultivation. It was also described by some as a strategy for helping others who are in desperate need of cash to buy food, and so operates as an efficient social security system.

Participation in agricultural labour groups was not restricted to the landless. Collective farming has been common in the area since before colonialism and the period of socialist resettlement policies during the sixties and seventies. Historically group composition was based on age-grade societies and agriculture was one of many activities performed collectively. These included hunting and magico-religious functions (Wijsen and Tanner

[6] ***Buganda*** or *rika* are farming groups. These were originally based on village age-grade societies. The term '***buganda'***derives from 'clan' which also signified a variety of other social groupings (Gunderson 2001).

2000; Gunderson). The latter two have become increasingly irrelevant to daily life but agricultural groups have survived socio-political change. This type of work was often the only regular route to cash for daily household expenses such as cooking oil or matches for many rural farmers. Strategies for dividing one's time between paid work on others' farms and subsistence work on one's own were normalised, avoiding current poverty being balanced against the risk of future difficulties with fewer subsistence crops. Larger profit gained from cash crops was used to cover annual expenses such as costs associated with health and education and may also be reinvested in seeds, the hire of ***ng'osheli*** (cattle ploughs) or tractors shared between a collective of larger-scale farmers. Such alternatives were more usually employed by younger generations seeking to augment their production capacity and increase profit. Meanwhile the elderly continued to produce hoes and other agricultural tools manually for home use and to earn a petty cash income.

4.2.2. Livestock husbandry

Sukuma identity is also traditionally linked to cattle ownership. Wijsen and Tanner (2000) suggest that '*the Sukuma are perhaps a cattle people who have been trapped into farming by environmental considerations but the idiom of social exchange and social betterment is still cattle owning and to a lesser extent goats and sheep*' (p71). Historically cattle have formed the basis of exchange relations in a system where wealth was measured in terms of cattle and social relations were formed through ties of kinship, cemented through the exchange of cattle as bridewealth (Wijsen and Tanner 2000; Gunderson). The dominance of cattle was possible due to the wide dispersal of households over a large geographical area which provided sufficient land for grazing distinct from that farmed. These conditions facilitated ownership of large herds and this in turn created easier living conditions and encouraged the association between cattle ownership and social status.

Although today cattle ownership is still common and popular, its hold over both economic and social life has diminished in both field sites. Despite this, they still provided an important source of household income or additional livelihood to agriculture and indicated higher socio-economic status for many research participants. Individuals demonstrated disparate perceptions of the value of cattle ownership which were stratified by area of residence and age. According to the WEO, Shambajiji, as a rural environment, contained a relatively large number of cattle owners and a total of 977 head of cattle in 2005, whilst Barakijiji contained fewer households specialising in cattle management, with 532 head of cattle in 2005. In addition to exposure to alternative income earning strategies, this contrast can be related to differential grazing space in each location. Indeed, cattle were so valued that there were households in Barakijiji, with access to cash income, who valued cattle ownership so much that they chose to house their cattle with a rural livestock keeper.

Differential perceptions of the benefits of cattle ownership were also affected by the relative profit earned and this was in turn, affected by available pasturage and adequate and regular water supplies. In recent years, the reticence of some households in Shambajiji to contribute labour to the construction of new watering holes combined with an increase in both cash crop and market garden farming has created a hostile environment for cattle rearing and an increased risk of trespassing on cultivated fields. Seasonal droughts have exacerbated tensions. In Shambajiji, despite all these disadvantages, investment in additional cattle was a preferred strategy if cash crop farming was successful and a household produced a large surplus. Alternatively, cattle were sold to access cash which was used to purchase additional fields or to invest in alternative business strategies. Informal discussions during participant observation on cattle ownership made it clear that profit was dependent on the sex of cattle. Female cattle were kept for their milk which was collected in early mornings and sold by youths both locally and further afield. The evening milk was usually consumed by the household, broadening nutritional intake. Whilst

female cattle provided a continuous source of income, male cattle were sold for a higher price at market. Prices fluctuated seasonally, dropping due to a flux of available stock during drought periods when many households needed to sell cattle to purchase food. Food prices on the other hand increased during these periods. Even though households with cattle continue to be considered wealthier and better able to manage misfortune, since they are able to sell livestock when faced with unforeseen expenses such as illness or death, herd sizes today rarely exceed 30 head of cattle. In addition some male cattle were valuable for cash crop farming where they were used to draw ploughs in the cultivation of large, unridged fields. These ***ng'osheli*** could be hired for half the price of a tractor.

Traditionally cattle were used as currency and were exchanged in the settlement of disputes, as fines for the breaking of traditional regulations or disclosure of traditional secrets such as those of the '*ihane*' male initiation ceremonies. They were also used to pay bride-price in traditional marriages (Tanner 1958; Tanner 1967; Wijsen and Tanner 2000; Gunderson). Whilst cattle were seen as providing opportunities to enter into a capitalist economic system they continued to play a central role in more traditional practices, such as marriage. Bridewealth payments may be made in cattle, cash or a combination of both. The type of payment used for bridewealth was related to type of income earning activity. Payments tended to be in cattle in Shambajiji whilst in Barakijiji they usually involved a combination of both cash and cattle. Considered within this framework, cattle were economically situated between two worlds and whilst many of the older generations continued to consider cattle as wealth coping strategy, and as important for their reputation, younger generations have re-interpreted the role of cattle into a business strategy, aimed at creating a cash income.

4.2.3 Non-agricultural livelihoods

Barakijiji forms the economic hub of a ward-based microcosm of the wider society. The centre attracts economic opportunists from neighbouring areas, generally on a temporary, daily basis. This reflects, on a smaller-scale, semi or permanent out-migration from the rural Sukuma hinterland to urban centres such as Mwanza City. Barakijiji centre was idealised by locals as a place of economic opportunity but concurrently due to increased recreational opportunities, as a dangerous locale by communities in surrounding villages, such as Shambajiji. For residents of Barakijiji, however, the benefits of access to alternative income earning strategies outweighed these risks because they rendered households less susceptible to the vagaries of weather fluctuations and cash crop prices.

Although agriculture continued to occupy a dominant position in both sites, the extent of its salience differed between the two socially disparate locations. Whilst rural Shambajiji was composed predominantly of farming households, Barakijiji demonstrated wider economic diversity. Barakijiji is also situated along the main road and is a stopover for some truck drivers as well as a central market for local villages. It was estimated by residents that 80% of households in Barakijiji, and 40% in Shambajiji, relied to some extent on a cash income. However, despite the variety of farming alternatives, the majority of households also relied to some degree on subsistence crops. Where a lack of time for labour made this difficult, external labour sources were hired, and where limited land availability made subsistence farming impossible, households described a heightened sense of vulnerability. Further, enterprising locals were often involved in more than one type of business and employed others on a salaried basis. Table 4.2 provides an overview of non-agricultural occupations. Income estimates were provided by several key informants during informal discussions.

Table 4.2: Non-agricultural occupations and income

Activity	Estimated Monthly Income (TSh)	
	Barakijiji	**Shambajiji**
Farming-related		
Market gardeners	10 - 25,000	10,000
Cattle owners	20,000	100,000
Milk sellers		30 - 50,000
Cattle herders		5,000
Fishing-related		
Fishermen (large craft)	50,000 - 1.5 million	
Coastal fishermen	30 - 50,000	
Salesmen		
Diesel/petrol/kerosene sellers	100 - 200,000	
Medicine shop owners	100 - 200,000	
Butchers	100 - 150,000	
Small shop owners	90 - 100,000	40,000
Permanent clothes/cloth shops	60 - 90,000	
Dispensary owners	50 - 200,000	
Market stall owners (vegetable)	50 - 60,000	
Grain sellers	30 - 50,000	
Market stall owners (fish)	30,000	
Mobile fish sellers	30,000	10,000
Mobile vegetable & fruit sellers	20 - 50,000	
Market stall owners (*dagaa*[7])	20,000	
Wood sellers	15 - 35,000	
Peanut sellers	10 - 30,000	
General Business		
Businessmen	200 - 500,000	
Grinding machine owners (Maize/cassava)	200 - 300,000	
Rice exporters	200 - 300,000	
Rice sellers	20 - 30,000	
Rice *changa*[8] sellers	10 - 20,000	
Landlords	5 - 50,000	
Transport Services		
Bicycle taxi drivers	60 - 100,000	60,000
Bicycle repairers	60,000	
Unskilled/Domestic Labour		
Water carriers	90 - 150,000	
Shoe shiners	60,000	
Housegirls	5 - 10,000	
Recreational Services		
Bar owners	200,000	
Pool table owners	90 - 150,000	
Video stall owners	90,000	
Café/Restaurant owners	50 - 100,000	
Music sellers	50 - 100,000	
Local beer brewers	50 - 70,000	50,000
Bar workers	30 - 50,000	

[7] Small dried fish common in Lake Victoria
[8] Left over rice ends once rice is sifted

Activity	Estimated Monthly Income (TSh)	
	Barakijiji	**Shambajiji**
Photographers	30 - 40,000	
Commercial sex workers	30 - 50,000	
Mama Lishe[9]	30,000	20,000
Gongo[10] brewers	20 - 30,000	60,000
Cake sellers	10 - 30,000	
Fish fryers	10 - 30,000	
Skilled Services		
Welders	200,000	
Brick makers	200,000	
Carpenters	100 - 250,000	
Seamsters	100 - 200,000	
Traditional healers	100,000	100,000
Traditional vet		
Salon owners	90 - 150,000	
Radio repairers	50,000	
Painters	40,000	
Electricians/workmen	30 - 200,000	
Secretarial services	30 - 50,000	
Other		
Government employees	90 - 260,000	90 - 260,000
Church leaders	60 - 100,000	60 - 100,000

Source: Key informants

The figures estimated for reliance on cash income for Barakijiji and Shambajiji respectively are also reflected in the respective quantity of alternative income earning strategies evident in each field site. Table 4.2 compares occupations and locally estimated income for both sites. In some cases, earning capacity differed for similar occupations between sites, due to issues such as transport, accessibility, quantity and nature of clients. The wide variety of occupations outwith agriculture in the peri-urban location demonstrates clearly the capacity for enterprise as well as the desire to escape complete dependence on agriculture. It also demonstrates the diversity of opportunity available and the internal economic disparities emergent in Barakijiji, where individuals sought to overcome environmental and cultural constraints to their own strategies for development. Economic diversification has contributed to the survival of this community, affected regularly by unpredictable environmental conditions. For example, if the rains failed and

[9] Literally 'to feed'. Women who prepare cooked food at home to sell on the street
[10] Strong locally brewed liquor similar to vodka

the harvest was ruined, businesses such as tailoring could rely on fishermen for custom. There was much less variation in income earning strategies in Shambajiji: its residents had more traditional livelihoods and lacked alternative economic opportunities. This does not translate directly to less economic awareness but rather to the implementation of different strategies to access alternative lifestyles. Amongst these, was the desire, especially amongst youth, to move away from traditional livelihoods and towards the greater economic opportunities perceived to exist in peri-urban areas.

In both villages the need for a cash income influenced some parents to encourage their children to contribute economically from a young age. Children were involved in a range of income earning activities in both sites, though this was more prevalent in Barakijiji. Income earning activities for children included cooking and selling small cakes, selling groundnuts and/or fruit on the roadside, selling ices at school for their parents, collecting water from the lake and running errands. Each of these impacted on their access to education and, in some cases, parental perceptions of responsibility prevented children from returning to school. For example, Frederik, a 14 year old boy in Standard 5, lived in Barakijiji, sometimes with his paternal grandmother, sometimes with his maternal grandfather and sometimes with his parents who were extremely poor and dependent on irregular income from daily labouring, most of which was spent on alcohol. With little alternative access to cash, he often played truant, selling groundnuts around the centre, encouraged to do so by his parents. In Shambajiji opportunities were different although the underlying economic factors were similar. John was 14 years old and attended school for a few weeks before his parents encouraged him to seek work as a cattle herder to contribute 5,000TSh per month to household income. Whilst he stated that he was glad to help his family and enjoyed the work and regular food, he often regretted the fact that he was illiterate and unlikely ever to return to school. These are extreme cases but many children combined school attendance with income earning. The son of Naomi, a wealthy

Barakijiji resident, sold ice during school breaks, competing for trade with his teacher, which caused additional school problems. Children were also taken out of school to provide seasonal farming assistance. Parents who discouraged their children from truancy also had to discourage their children's desire for cash income, especially in environments with greater opportunities such as fishing villages on the lake.

Women's income generating roles differed considerably between Barakijiji and Shambajiji. In the latter they were largely restricted to farming, while in the former they performed wider roles for a number of reasons. These included more income earning opportunities and clientele for petty business, greater reliance on a daily cash income to purchase household needs including water, charcoal and food, and an average higher level of education. Employment was also commonly viewed by women as a means to assert equality and decision-making power. Those households reliant equally on cash (not labour) input from both males and females tended to demonstrate greater gender equality in decision-making[11]. Cash income was also considered a route to independence, especially given the fragility of informal marriage. Loveness, who was divorced and sold wood with her sister in Barakijiji was striving to earn enough to support her children and mother so that she didn't have to marry again. For many women in both villages, formal marriage is likely to bring an end to independent income-earning strategies, a return to the dominance of the private sphere in women's lives and a greater dependence on the husband who has continued access to the public arena. A large number of women in both sites described a natural progression from education to employment to marriage, all of which formed important stages in their maturation from children to adults.

[11] For example the case of Serafina, a 36 year old seamstress from Barakijiji provided the majority of cash income in the household and claimed this increased her role in decision-making.

4.2.4 The role of fishing in a mixed livelihood, lakeside economy

Barakijiji ward, whilst not wholly located on the shore of Lake Victoria, is nevertheless influenced by its economy due to its close proximity. This economy provided an alternative source of income for the unskilled outwith agriculture and sustained other non-agricultural livelihoods during periods of drought. Those involved in the fishing industry travelled daily to Samakijiji village, 4 miles from Barakijiji. This is a fishing-based centre with a diversified economy which reflected increased access to cash and profit through association with rich fishermen. These tended to work at night, returning in the early morning with their catch, which was transported on wheelbarrows to fish weighing machines run by large corporations based in Mwanza City. As a parallel trade to the fish sent further afield, approximately 30% of the catch was sold to more local fish sellers. However, exposure to macro-economic influences created price fluctuations and profits could be unreliable. If a fisherman had been successful he was more likely to sell to large companies whilst an unsuccessful catch would be sold locally; 1kg of tilapia sold in Samakijiji for about 1000TSh at the end of 2005. Preference for a less competitive buyer's market influenced some fish sellers to visit the Barakijiji lakeshore, where smaller scale fishermen brought in their catch. But fish caught here were generally smaller, though closer distances to Barakijiji centre meant that profit could be more quickly gained.

Much of the money earned by fishermen was spent in the burgeoning numbers of shops, bars and guesthouses which populated the fishing village. Opportunistic income seekers, many from Barakijiji, have established small businesses and women are drawn to the area to access cash through commercial sex work. These women could extend their business to Barakijiji village at certain times of the year, such as June to August, when cash was more readily available.

Whilst fishing traditions encouraged male dominance and it was rare for women to fetch water from the lake, many women were involved in selling fish in the local markets. For example Bertha, a divorced mother of two young children who lived with her mother and younger siblings was the primary income source for the household and struggled to feed the family by walking 2km to the lake early every morning to buy a bucket load of fish on the Barakijiji shore. She was only able to buy smaller tilapia fish since she couldn't compete with the large fishing corporations who bought up all the Nile Perch, and on some days there was little fish to purchase and sell on. If she had not managed to sell her fish by the end of the day she would take them home to feed her family. Such relations between macro and micro economies commonly influenced the local economy of Barakijiji but were less apparent in Shambajiji, where the cash economy was less dominant.

4.2.5 The role of migration

The majority of individuals who took part in the research had travelled within the region, generally to attend a funeral, wedding or to visit relatives, though this was more prevalent in Barakijiji than Shambajiji. Such travel episodes widened social networks and exposed individuals to a wider diversity of experience. Regardless of destination or cause, the act of travel alone was sufficient to associate an individual with a modern lifestyle and thus the opportunity was coveted. However, unsurprisingly in a patriarchal society, men were more likely than women to travel if funds were limited. Furthermore, men were also more likely to travel on a regular basis for business. Examples include buying and selling milk between Shambajiji and Mwanza City, the import/export business between Barakijiji and the border or regular travel to sell fish between the lake shore and inland communities[12]. Men also relocated temporarily to fishing communities on islands, to run a business in Mwanza City or through salaried government employment such as police work or

[12] This business often provided inland communities with a rare source of protein

teaching. This practice encouraged some men to keep a wife in both the place of origin and place of work.

Temporary migration was also a common strategy in health seeking behaviour: some people might reside with a renowned healer for a period of prolonged treatment, in some cases lasting years, or stay with relatives in order to access biomedical facilities regularly. The latter increased the financial burden of the host household, a consequence rarely considered when rural dwellers sought such options. Temporary migration to access health care was not restricted to patients; traditional healers also travelled long distances to attend a sick patient. They would also relocate permanently to access a wider patient network or when called to do so by ancestral spirits. Pursuance of traditional cures through the performance of rites on ancestral land encouraged temporary return to home villages for those who had relocated, often travelling great distances.

Fewer women travelled on a regular basis. Women would travel to buy material, clothes or other items to sell locally. Such strategies were most common amongst single or divorced women who either left their children with grandparents or alone, forced by financial need. More commonly, however, the dominant reason for women's migration tended to be marriage within a patrilocal kin system, either to a neighbouring village or further afield. Children were also exposed to both temporary and permanent migration, either because of education or due to parental separation and divorce. Migration to urban areas amongst children could be a response to unhappy home environments such as relationship problems with step-parents. Migration was commonly perceived as opportunistic, particularly for youths seeking to fund further studies through access to richer relatives in urban areas, or seeking greater income in mining or fishing areas. Relationship to a successful out-migrant was considered to improve social reputation but it was often the lack of success amongst migrants that prevented them from returning home.

Increasing opportunities for travel and out-migration through socio-economic opportunities in urban environments also increased the volume of in-migration to Barakijiji Ward, as a socio-economic hub. This in turn created a higher degree of social mixing and ethnic diversity in the area through the pursuance of cash income or employment. Social acceptance of newcomers was often dependent on their immediate access to social networks in the village. For example, those who were members of a wider church community such as the African Inland Church sought opportunities to introduce themselves in church and were soon involved in church activities. If invited, traditional healers already had a clientele but if uninvited they would take time to prove their capacity as a healer and establish a profitable client base. For those without such a route to acceptance, experiences were often less positive. Finding rental accommodation could be difficult for those coming into the village with no established social networks, possessing no local sponsor.

4.3 The social landscape

4.3.1 Socio-demographic characteristics

Barakijiji Ward is predominantly populated by the Sukuma ethnic group, who comprise the majority of Mwanza and neighbouring Shinyanga Regions and are also the largest distinct ethnic group in Tanzania. However, there was some ethnic diversity, more apparent in Barakijiji village. Barakijiji ward as a whole had a total population of 8781 in 2004 (2005), 4,088 being in Barakijiji village and 1,932 in Shambajiji. There were proportionately less households in Shambajiji, with 314 to the 1,004 in Barakijiji village. This indicates additional disparities between average household size and number of

children in each village. Whilst in Barakijiji the average number of children was between 5 and 6, in Shambajiji this increased to between 7 and 8.

4.3.2 Home environments

In addition to disparities in number of children between the two villages, the type and particularly range of housing was sufficiently distinct to be worthy of mention, especially given that type of housing was described as an indicator of modern life as well as an individual's socio-economic status. In Shambajiji the majority of houses continued to be constructed with mud bricks and thatched with local grasses. There was evidence in the frequency of collapsed houses that many were constructed from non-kiln bricks piled on top of each other and filled in with mud to hold them. These were re-plastered annually in fresh mud to prevent their collapse. But these rectangular structures generally last for only a few years due to wind and rain erosion and are eventually rebuilt. Houses built of bricks fired in a kiln, on the other hand, have a much longer life expectancy and can last through generations. However, these are more expensive to build due to increased labour involved in making the bricks[13]. Most households aspired to roof with iron sheets and eventually to build a basic structure with cement blocks, though the cost was often prohibitive. Further, if a particular household was economically able to invest in the construction of a bigger house from cement blocks, many claimed they would choose to build outside their local social environment to prevent their exposure to the jealousy of others. Households thus balanced current investment in labour and expenditure against future dependability of housing structures and enhanced social reputation against exposure to social risks.

[13] Roofing types also varied with two types of thatch. The first, '***shigele'***, is sturdier, made from a greater quantity of grass which lasts between 5 and 10 years. The second, '***buzwelele'***, made from cut grass and cheaper than the former lasts for only 2 to 3 years.

Whilst all of these types of housing were evident in Barakijiji, and collapsed buildings were a feature of the landscape and a topic of discussion, many of the houses were constructed with cement blocks and some even had access to electricity, though none had access to piped water. In addition, many homes were rented in Barakijiji whilst the majority were owner-occupied in Shambajiji. Further, and in contrast to the preventive behaviour of Shambajiji, Barakijiji residents were less concerned about the display of wealth, despite exposure to similar social problems, and if an individual was successful, wealth was likely to be displayed through conspicuous consumption. Other conspicuous indicators of adherence to traditional ways of life were demonstrated in the round houses located away from the centre of Barakijiji. These were constructed to show respect to the ancestors, often as a protective strategy in response to household misfortune. Generally, a compound composed wholly of this type of housing represented visually the trade of a traditional healer.

Food consumption was also associated with success; satiation was commonly recalled as a happy childhood memory and those considered more successful were less likely to be seasonally constrained in their diet. Reasons for a lack of seasonal variability in diet were twofold and differed between the two sites. In Shambajiji, households that had a successful harvest the previous year and were able to stockpile could be unaffected by periods of hunger. In Barakijiji, in contrast, households whose income was independent of agriculture claimed that they remained unaffected by seasonal fluctuations. However, since they were exposed to price fluctuations they could afford less when prices increased. Such price fluctuations could be dramatic. Within two weeks in the pre-Christmas period maize increased from 3,500/- to 4,500/- for 20 litres and a kilo of rice rose from 500/- to 650/-. In turn, prices of lake water and charcoal were also susceptible to fluctuation, the former due to lack of rain, causing greater hardship at household level and a daily struggle for mothers to feed their children.

In general, the wealthier of both villages reported that they ate three meals a day, whilst the less well off stated that they generally ate two. Whilst this was reported to be seasonally variable, there were no instances when people stated that they consumed only one meal a day. This suggests a disparity between reported behaviour and actual behaviour since other research in the area found that some families only consume one meal a day during the cultivation season (Wight, Plummer *et al*. 2006). Although interviews asked specifically about seasonal variations, the fact that the fieldwork took place from September to March, may have affected these responses. In contrast, the long rains occur between March and May which is both the main farming season and the hungriest period of the year. The main harvest season then occurs between May and July. What is clear is that dietary composition was heavily dependent on economic status. Breakfast, for some, included either porridge (*uji*), rice buns, doughnuts, rice or chapattis, sometimes with meat. Lunch for the majority was *ugali* or stiff porridge made of cassava flour and maize, with fish or vegetables, depending on household capacity. This was believed to provide strength for the day's work. Rice, a higher status food, was more commonly consumed in the evenings.

Many families in Barakijiji chose to eat inside. Reasons for this were situated within social relations. Residents of the village with whom I shared food explained that with neighbours living in close proximity, there was often a social obligation to share food and many feared reprisals if they were asked and refused. In Shambajiji, with wider spacing between households and less likelihood of being overlooked, meals were usually eaten outside when weather permitted. Males and females generally ate separately, especially in Shambajiji. This practice originated in extended family residence practices involving sharing economic resources but socially segregating affinal kin. In discussing the practice

during shared meals, families explained the origins of the tradition and inferred their own habituation, despite the regular absence of extended affinal kin during meal times.

Traditional norms also influenced sleeping practices in households owning livestock. If a suitably secure fenced area was not available for young livestock such as calves and kids, they would be kept inside for fear of attack by hyenas, a risk in rural Shambajiji. Such practices however, meant that family members, often youth, slept in the same huts as livestock. If compounds contained more than one hut, younger children would sleep with parents or grandparents and older children and youth would sleep in separate huts. This would often benefit youth since it facilitated covert meetings with sexual partners. Such sleeping arrangements were most common in Shambajiji. Constrained by smaller living spaces and fewer huts, many residents of Barakijiji would share the same house, although there were often two sleeping rooms. If a spare hut was available youth would move into this. In some instances, overcrowding at home encouraged youth to relocate to grandparents and this also facilitated night-time activities.

Hygiene was considered an important indicator of both wealth and status because there were recognised constraints in access to regular water supplies due to cost and distance. Most households needed a bicycle to fetch it from the lake themselves or paid for local youth to deliver it daily. Definitions of hygiene were variable; whilst some households acknowledged the benefits of boiling drinking water many refused since '*tumeshazoea*' (literally 'we are used to it'), and claimed that boiled water caused stomach problems. This phrase was used in an informal conversation with a woman at a well in Shambajiji, and was heard frequently in discussions about boiled water with Shambajiji, and less so Barakijiji, residents. Water purity was differentiated by location of source in both sites. In Barakijiji, lake water was considered dirtier than pumped or rain water, the latter two more commonly used for drinking, although pumped water less so due to its salty taste. Relative

costs were unrelated to perceptions of purity. Lake water cost 100/- and pumped water 20/- for 20 litres. Pumped water was often more accessible but required early rising to avoid long queues, whilst lake water was delivered. Relative purity of water supply was also affected seasonally. Pumped water was considered cleaner in the dry season but became polluted during the rains and was then replaced with traditionally dug well water for drinking.

Some households in both field sites had no toilet, either because of lack of resources or because the environment was not conducive to digging a deep latrine. In Shambajiji, this meant defecation in fields and in Barakijiji, using a neighbour's toilet, which is problematic at night or in times of illness. For neighbours of those without toilets, social position often dictated their willingness to share. Church leaders felt obliged to allow worshippers and neighbours to use their latrines, despite awareness of their lack of hygiene. In contrast, some, such as Loveness, a migrant to Barakijiji, locked their latrines to prevent neighbours from abusing them at night, unafraid of possible social repercussions.

4.3.3 Aspects of family life

Formal traditional marriages based on brideprice have become less common in Barakijiji society whilst modern church marriages were unaffordable to many residents, despite high levels of church attendance. Formal church marriages enhanced social reputation since they are large-scale community events, requiring much organisation and the collection of contributions from those expecting to attend. Some 'marriages', ostensibly based on the exchange of cash or cattle, were often formalised through payment years after a couple had eloped without the consent of their families. In some cases couples remained together for life without any formal celebration or exchange. Many older residents of both field sites

stated that their first marriage was ***bukwilima***, i.e. arranged through formal, traditional ceremonies and, especially for women, occurred between the age of 14 and 17. Younger residents instead cited ***kuleyha*** or elopement as their first marital experience and early separation after the birth of 1 or 2 children. Wight *et al* (2006) suggest that one type of union can lead to another, where marriage becomes a process. Thus, many elopements, although originally opposed by parents, are eventually recognised and formalised through the eventual payment of bridewealth. These alternatives to formal marriage have become increasingly prevalent (Abrahams 1981; Setel 1999; Wight, Plummer *et al*. 2006). Age of marriage has increased over the years, but whilst many youth chose not to marry, many were still engaging in sexual behaviour at a similar age. During my research, many respondents who declared that they avoided sexual relationships because they preferred to pursue a successful career first, ended up pregnant. Male youth in Shambajiji claimed that attempts to prevent risky sexual behaviour by older community members have resulted in the resurgence of previous traditional practices of early marriage, encouraging youth to formalise relationships as a means to prevent HIV. According to several informants, growing awareness of HIV has sharply decreased the prevalence of wife inheritance as a traditional practice in this area.

In data collected from ward government officials it was estimated that 5% of households were polygamous in both villages and there were a reported high number of households headed by women, at 34% in Barakijiji and 27% in Shambajiji. The majority of orphans were living with relatives and, reportedly, only 1% of households were headed by children. Whilst decisions to marry a second wife were believed to be influenced by income, considered an indicator of individual ability to access a modern life, formalised polygamy was perceived to indicate a more traditional lifestyle. Other factors believed to influence polygamy were cited as desire, religion and social respectability. Amongst men and some women, polygamy was generally viewed as more respectable than having or being a

mistress. Men and women in such marriages often referred to the necessity of treating wives equally and hinted at conflicts that would be controlled through the separation of wives in different houses or even different towns.

Despite acknowledgement of problems, disputes between wives were frequent and many women chose to leave rather than share their husband. Alongside infidelity, the threat of polygamy was considered to be one of the most common reasons for divorce. According to children whose parents had separated, others included parental conflict, and escape from domestic violence. Separation of parents was also the primary cause for children living with either paternal or maternal grandparents, but many children, some as young as six in the case of the family with whom I lived in Shambajiji, chose this route, seeking stability from unstable parental relations and living arrangements. Children's relations with grandparents were often better than with parents. This was especially the case if the child had inherited a family name. Commonly cited Sukuma tradition states that a baby will cry uncontrollably until it receives the name it is supposed to inherit from its grandparent and this often meant that parents would change their child's name several times before settling on one.

On parental separation, type of marriage dictated arrangements for residence of children since it was uncommon for step-parents to willingly take over their care from a previous partnership. If bridewealth has been paid and the marriage was official, then children are considered part of the patrilineage and if weaned will be taken to live with paternal grandparents. If no bridewealth has been paid, children are more likely to live with maternal grandparents. Payment for children can also be made by the father after the birth of the child and separation of parents. Regardless of the length of time prior to bridewealth payment, once paid, even after divorce, the children revert to become the property of the

father. This policy has cemented male parental authority over women, and many mothers have had to give up their children once they reach school age.

Despite the longevity of some marriages, more so in Shambajiji than Barakijiji, dominant themes in life narratives involved a history of separation, migration and children residing with grandparents. Given this, it may seem incongruous that children are highly valued by women, and that a woman may be so desperate to have a child that she asks her husband to take a second wife to bear a child which she then takes as her own once weaned. This practice was considered to be common but was also risky since the man may choose to remain with the second wife and abandon the first.

Regardless of level of formality or type of marriage, normalised gender disparities at household level dictated domestic and wider community life. Sukuma traditions of respect are gender based as well as age based. Accepted terms of address in the community distinguished between generations, with different terms used to indicate a separation of none, one or two generations. Youths addressed older men with respect but women also addressed male youths with respect and genuflected in their presence. Traditional practices and roles are changing with increased immersion in a wider society, but my experience suggests that this is occurring faster in age-based relations than in those based on gender. It was considered common for youth to earn respect through education, wealth and behaviour and no longer through ascribed status. Youth felt the elderly had to earn respect through their behaviour. They bemoaned the role of the idle elderly, gossiping about the behaviour of the young whilst the aged idealised a more respectful past.

Transitions in gender roles were slow and often contradictory. Boys and girls may have equal access to education but household tasks were still divided; girls were taught to clean, cook and cultivate whilst boys were taught to tend livestock and collect water. There was

some disagreement about whether collecting water is the work of women or men, which reflects changing gender roles. Members of more parochial households stated categorically that collecting water is women's work, whilst others suggested that this is the work of boys and girls, and in Barakijiji centre this is the work of male youth: for girls to collect water is an indicator of extreme drought.

Dominant residence patterns common in both field sites were seemingly based on nuclear family units. However, there was much variation due to factors such as high rates of parental separation, children choosing to stay with grandparents, elderly relatives dependent on younger generations and parental mortality. Maternal aunts and paternal uncles, described as *mama mdogo/mkubwa* and *baba mdogo/mkubwa* respectively[14], were considered as additional parent figures. Obligations towards nieces and nephews were often fulfilled through hosting a prolonged stay for the purpose of education, or adopting them as their own if circumstances dictated. In this way a wider network of kin was given responsibility for children. This extended kinship system provided a social safety net for children and their parents, especially given high rates of divorce and separation, but it also entailed social obligations towards an increased quantity of kin. Enhanced opportunities for migration have created increased possibilities for children within a wide kinship network. They have also increased disparities in financial abilities between rich and poor or between urban and rural dwellers. In many cases this has led to competition over inheritance of land or wealth and caused social disparity and jealousy. Familial obligation, and fear of the consequences of envy and disunity within families, meant that some successful individuals played host to an increasing number of dependents. Rumours and stories abounded of individuals who had been killed by witchcraft applied by members of their own families seeking to access wealth or prevent progress. The entrenchment of such beliefs meant that misfortune may be attributed to the malevolence of those closest to you,

[14] And according to age of aunt or uncle in relation to parent e.g. *baba mdogo* is a father's younger brother and *mama mkubwa* is a mother's elder sister

especially where disparities of wealth or success are concerned, and this may provoke violent repercussions.

4.3.4 Wider social networks and obligations

Social relations were integral to individual or household social and economic survival in both field sites, given harsh and fluctuating conditions and a primary dependence on agricultural livelihoods. Social relations were maintained through participation in both long-standing and more recently established social groups, and economic security was often reflected in social security through such relations. Formalised weddings, as has been suggested, are increasingly rare events due to a growing tendency amongst youth to elope and the prohibitive cost. When formal weddings were celebrated, invitations were exclusive and complex systems of fundraising were an accepted component of preparations. Committees or ***harambees*** were arranged to finance and organise the wedding. Invitations to sit on these were informed by individual social status but since members were obliged to contribute financially, individuals were reticent to volunteer. ***Bukombe***, or brideprice negotiations regularly preceded the establishment of wedding committees in more 'traditional' households. These were explained by a man in Shambajiji:

> *'Let me begin with the bride price negotiations [**bukombe**]. We…we invite the elders, one elder as chief spokesman and other elders to assist him, I don't think we invite the youths…we don't invite them, they only come to their colleague (the bridegroom) for the purpose of contributing, something like a **harambee** [wedding committees]. We contribute anything to help him, but not food, not to entertain the guests with beer, we give them soda while we discuss with them. That is how we co-operate at bride price negotiations.'*
>
> [FGD 310106 EMAMA]

Once arranged, invitees received a card asking for a contribution per couple attending; in Barakijiji on average 5,000/- and Shambajiji, 2 to 3,000/-. This contributed to wedding costs. Only those who paid received a second card with the wedding invitation.

For the host, household funerals were described as more costly than weddings, since, although contributions were also provided, these tended to be minimal; cited at 200/- if the deceased died at home and 500/- if death occurred in hospital or elsewhere. These funds contributed to transport, burial and the costs of feeding funeral attendees. In contrast to weddings, however, it was obligatory to attend if the death was in the immediate sub-village in Shambajiji or in the *nzengo*[15] in Barakijiji. If an individual refused to contribute time and/or money s/he may be forgiven once, but if this re-occurred then, unless there was a public apology and payment of a fine, s/he was likely to be socially isolated and receive no reciprocal community assistance when misfortune affected her/him directly. The financial burden on those living in extreme poverty faced with high mortality rates is indisputable and contributes to the increasing social exclusion of the vulnerable, most in need of social support. Contributory roles were distinguished by gender; women provided firewood, brought food contributions, cooked for 3 days and spent nights with the bereaved, whilst men dug the grave, transported the body, buried the coffin and worked collectively to inform relatives.

Women were rarely able to escape these social obligations, but cultural norms had provided an escape avenue for men. Membership of the ***ihane***[16] group of village elders

[15] The *nzengo* was established as a geographical division for obligatory funeral attendance when populations and thus frequency of deaths became unmanageable at *mtaa* or geographical street level.
[16] The '***ihane'*** was originally an age-based group of elders whose functions included the negotiation of bridewealth. These originate in the secret societies established to communicate with the spirits [for description of these see (Cory 1960)and are viewed today as antithetic to religion and modern values.

protected 'elders[17]' from labour obligations at funerals. This caused resentment amongst youths who complained during group discussions that the ***ihane*** had no useful purpose today, but rather provided an excuse for men to drink and demand good food from their wives. This viewpoint was influenced both by the exclusive nature of group membership and by tension between modern work ethics and a desire for individual economic advancement and traditional practices with no specific purpose other than that of social solidarity. Traditionally, group involvement was considered to improve individual social reputation but, whilst some youth continued to feel social pressure to join the group, others claimed that it was irrelevant to modern lifestyles and contradicted religious values.

In contrast, membership to other groups based on cooperation, reciprocity and social solidarity was not considered a remnant of the past but rather to promote a modern reputation. This was assured, not through the acquisition of wealth or education but rather the sharing of such wealth or knowledge. For example, a man in Barakijiji stated;

> *'To help people, and when you help people and you explain to them and they understand. Then you are someone with modern life because you help them to change their education.'*
> [FGD 180106 DNYMA]

This was supported by others in group discussions, describing a particular respected member of the community;

[17] 'Elders' were originally ascribed by age which informed status. Age-based systems of respect have receded in recent years. Instead, the term 'elder' was given to any individual who chose to join the group if they were married, had children and could afford contributions to 'ihane' meetings. Such changes had encouraged a decrease in respect from youth towards the aged and were reflective of generalised changes evident in social reputation. Indicators of heightened social status were in flux at the time of the research. This no longer related solely to behaviour cemented by age but to behaviour supported by economic ability. These changes will be considered further in Chapter 6.

'We say that he is a modern person because he can have those ideas of bringing his friend, he had helped young men who had been spending most of their time hanging out and doing nothing but he took them to school and they have completed school, and now they are getting their own money, they are working, they are getting money and they are self-dependent, because they will not, what do we call that, they will not be pickpockets, they will be able to live with their families.'

[FGD 080206 FNGDN]

This type of respect could be achieved through inclusion in other social groups such as ***ifogong'ho*** [savings and credit groups], church groups and ***buganda***, which have been discussed previously. Additionally, youths were involved in seasonal attendance at discos, although these were slowly decreasing in number since healers and dancers had begun to charge for their performances, and sports activities such as football. The former two were considered as opportunities for risky sexual behaviour, whilst the latter was believed to control sexual desire through physical activity. Whilst social events for youths were not discouraged, there were also attempts to control youth sexual behaviour on a wider community level. For example local churches banned Midnight Mass in 2005 since leaders felt that this was being used as an opportunity to meet with partners to have sex. Such attempts had little effect since the Christmas period encouraged less restricted sexual norms and saw an increase in sexual negotiation. There was even an occurrence of rape on the streets of Barakijiji during my fieldwork in the Christmas period. But this period was not considered representative and social life was generally more peaceful.

Level of social cooperation was also measured through the 'voluntary' nature of community development contributions such as digging and cleaning wells and labour contributions to school building improvements. Whilst such practices could not be rigorously enforced, every household was obliged to send a representative to collective

activities and failure to contribute prompted a fine. These were often difficult to collect and wiser leaders would generally approach this with some flexibility since some households had greater capacity to contribute than others. However, frequent refusal could result in social exclusion, once again a penalty that predominantly affected the poor.

In contrast, informal inter-personal social assistance may depend purely on the quality of social relations, cemented by reciprocal obligations. For example, collaborative neighbours would assist in collective house building or farming, or help feed children or provide salt in periods of hunger. Such free assistance was more common in Shambajiji than in Barakijiji. In the latter, neighbourly tensions and fear of jealousy and its enactment through witchcraft created a context of heightened individualism and secrecy, for example hanging curtains to prevent others from seeing possessions inside the house.

Exposure to gossip and jealousy was not just an issue between neighbours, but rather related to wider social relations, especially in Barakijiji. Female youth in particular complained that they were unable to walk along the street without idle people gossiping about them and this could ruin an individual's social reputation. Such exposure meant that it was difficult to find people to trust, and once a good relationship was established with an '*ndugu*[18]', people would endeavour to protect this through heightened reciprocal assistance and good will. The role of '*utani'* [joking] in such relationships is interesting to note since this is a historical tradition both amongst the Sukuma and in relationships with outsiders such as the Zaramo[19], who they depended on for food along trade routes during pre-colonial times (Iliffe 1979; Allen 2002).

[18] Literally translated this means 'relative' but colloquially it refers to a trusted individual who has a long established relationship with your family.
[19] The ethnic group historically inhabiting the coastal plains surrounding Dar es Salaam, on whom the Sukuma and Nyanwezi depended for hospitality in their roles as porters on trade routes during the 19th century.

4.4 Local administration, health and religion

4.4.1 Political organisation and law enforcement

In the wider social environment, people claimed that they were able to work together because the local government encouraged them and assisted in the maintenance of good community relations. The role of local government ranged from that of resolution of intra-familial disputes, to organisation of village development activities and punishment for social crimes such as witchcraft and theft. In this, they were assisted by the local informal militia, the *sungusungu* (Abrahams 1987), since many people were reticent to report crimes to the police for fear they would have to pay them or might even be accused themselves.

All three villages fell under the jurisdiction of one central administrative Ward Executive Officer (WEO), with a team of specialists such as an Agricultural Extension Officer, Community Development Officer, Education Officer and Livestock Officer. These were government employees whose role was to provide leadership and to support development and production activities in the Ward. They were supported in turn by District level officers, based in Magu Town, the district capital. At village level the Village Executive Officer (VEO) was externally appointed by the local government. S/he was a member of the predominant ethnic group of the village but preferably, in order to avoid nepotism, from outside the ward. In contrast, a locally elected government leader, the Village Chairman (VC) drew his authority from his social reputation within the local community and worked voluntarily. The character and commitment of the VC is often fundamental to village community development, especially in rural areas, where the evidence from the fieldwork and wider experience in Tanzania suggests they generally play more dominant roles. In theory the VEO works alongside the locally appointed VC. In practice this varied

between the villages and depended on the respective personalities as well as the social dynamics of the wider community.

In Shambajiji, both the VEO and VC, at the time of the research, had come into post within the previous 2 years, whilst the VEO of Barakijiji had been in place for many years and the VC had been newly elected. In the former, a female VEO from outside showed due respect to the male VC of a similar age. The VC had consolidated his position in the community where he was almost universally respected and popular, having shown no tendency to misappropriate funds as his predecessor had done. In addition, he demonstrated a strong commitment to community development through egalitarian leadership. The relationship between VEO and VC in Barakijiji was far more complex and influenced by wider social networks, increased competition and greater desire for material gain. Neither was universally popular and both were subject to the accusation of theft of community funds throughout the period of fieldwork. Rather than collective contributions to village development through a central leadership, community development schemes here were more dependent on individual initiatives. This was beneficial in the range of skills available but also detrimental in the lack of central organization. Consequently there were more opportunities for development in Barakijiji, but project sustainability was less reliable given perceptions of limited collective ownership.

4.4.2 Education

Primary education attendance in Barakijiji ward was relatively high due to its accessibility since the *Ujamaa* period of resettlement. In contrast, access to secondary education has, until recently, been frustrated by long travel distances as well as cost and Low Standard 7 primary pass rates, the last particularly affecting young people in Shambajiji. I have no data on the proportion of young people in the area who go on to secondary school, the

nearest of which was in Jirakijiji, which provided Form 1 to 3 only and was situated 4km outside Barakijiji Centre. At the time of the research there were 400 pupils enrolled at Jirakijiji, from several surrounding villages. Pursuing education further than Form 3 meant boarding or staying with relatives. During the fieldwork period, Barakijiji Secondary was under construction, an achievement attributed to the recent political reign of Benjamin Mkapa, though efforts to complete the building on time were nearly thwarted by the regular disappearance of funds. Despite this, the school opened on time in January 2008.

In contrast, there were five primary schools in the ward: including two in Barakijiji and one in Shambajiji. Primary education was in theory available to all children between seven and fourteen. In practice a student who frequently failed annual exams or was regularly sent home from school for a lack of uniform or equipment could still be in primary school shorts until 18. Whilst Universal Primary Education (UPE), in place since the late nineties, ostensibly meant no school fees, ability to attend was still dependent on financial capacity since indirect contributions were compulsory in the form of uniforms, equipment, payments for school committees, sports, security, food etc. Pupil-teacher ratios in each of the five schools were not optimal at 43 and 41 pupils to one teacher in Barakijiji, and 46 to one in Shambajiji. School experiences commonly featured grade repetition and suspension for lack of uniform or non-payment of school contributions. Nursery schools for those younger than seven were only available in Barakijiji since there were insufficient funds in Shambajiji to keep their nursery open. Children were frequently taken out of school to assist with seasonal farming activities, and some left completely to pursue economic opportunities such as cattle herding. Nevertheless, the importance of education was a common feature of discussions at both individual and community level.

4.4.3 Health

Like education, health was an important feature of both individual and community narratives. Reduction of morbidity and mortality was constrained by environmental factors, such as the lack of access to pumped water, and the quality of healthcare available in the local vicinity, in terms of type of services available, access to drugs, and service providers' relationships with patients. Both government and private biomedical services were available in Barakijiji ward and accessible to residents of both villages. The principle diseases documented by the local government health centre are presented in Table 4.3. Records are not clear as to whether the figures cited include double counting for the ill and deceased. Health workers explained that it was often harder to identify causes for mortality than morbidity since not all deaths were reported officially and those that were may not have specified the exact cause of death. However, they reported the main cause of death to be malaria in all age groups, followed by anaemia and diarrhoea in 0-5 age group and 'other non-specified' diagnoses in 5+ age group.

Health seeking was pluralistic. Individual concepts and practices regarding health and illness were also syncretic in attempts to avoid or manage misfortunes. There were a reported 45 registered traditional healers in the ward who provided a range of different services. These included the treatment of biomedically recognised diseases through herbal medicines, divination, ancestor worship and sorcery techniques. Traditional healers also provided advice and implemented strategies to prevent disease and misfortune through the wearing of amulets, the performance of *tambikos*[20], or scarification. Healers were also important in assisting the identification of the source of an illness or misfortune through divination.

[20] *Tambikos* are ceremonies performed to appease the ancestors or spirits, generally involving a sacrifice. Instructions concerning these rites were generally taught through secret age-grade societies (Cory 1960)but nowadays an individual is more likely to be taught the rite through recourse to a traditional healer, although the enactment of the ceremony may take place without the healer's presence. In other cases, a healer may visit the home of the client to perform the ceremony him/herself.

Table 4.3: Reported morbidity and mortality for Barakijiji ward 2004-5

2005	**0-5 years old**		**5+**	
	Disease	**No. of Cases**	**Disease**	**No. of Cases**
	Malaria	2739	Malaria	4195
	Pneumonia	624	Minor surgical conditions	589
	Diarrhoea	422	Worms	588
	Acute Respiratory Infection	341	Diarrhoea	522
	Worms	211	Pneumonia	495
	Eye diseases	209	Ill-defined	391
2004	**0-5 years old**		**5+**	
	Malaria	5240	Malaria	9614
	Diarrhoea	868	Acute Respiratory Infection	1918
	Pneumonia	770	Minor surgical conditions	1244
	Eye diseases	546	Diarrhoea	1114
	ARI ??	440	Worms	778
	Skin infections	300	Eye diseases	500

Source: Assistant Medical Officer, Barakijiji ward Health centre

4.4.4 Cosmologies

Recourse to traditional beliefs and practices was popular in both villages. Perceptions of the origin and management of misfortune related to collective beliefs drawn from historical tradition which often co-existed with monotheistic religious affiliation. Reported and actual church attendance was often contradictory and government figures citing high rates of attendance may not accurately reflect reality. Mesaki (1993) suggests that the majority of Sukuma are non- religious (Mesaki 1993), however, local data presented by village and ward leadership, suggested that 75% of the population reportedly followed monotheistic religions whilst 25% were self-declared pagans, following 'traditional' beliefs. The Roman Catholic faith still maintained a stronger foothold than other organised religions in both Shambajiji and Barakijiji, largely because the area was settled in the early British colonial period by Catholic missionaries (Wijsen and Tanner 2000). Similarly to the

complex plurality of health seeking behaviour, local Sukuma worldviews were pluralistic, contingent, and adaptable to specific circumstances. On first encounter an individual was likely to inform the enquirer of their 'official' belief as either Catholic or Africa Inland Church (AIC), Seventh Day Adventist (SDA), Muslim or Born Again Christian (known as *Walokole*[21]) but further and deeper enquiry often highlighted a reality somewhat different, either in a lack of regular church attendance or the presence of traditional houses built to respect their ancestors. Ancestor cults were still dominant and even amongst those who claimed regular church attendance, practices such as naming of children suggested the continued observance of their power. Likewise, interpretations of misfortune often indicated continued belief in spirits, sorcery and witchcraft and local stories abounded providing residents with evidence of the presence of *mashetani*, *mizimu* and *mapepo*[22]. Recognition of supernatural agents other than God was more or less universal, even amongst church leaders. What distinguished strong Christian believers from pagans was that to the former, all *uchawi* (witchcraft and sorcery) and *uganga* (traditional healing) were evil, since the source was similar. In contrast, pagans distinguished between *uchawi* as evil and *uganga* as beneficent. Similarities that may be experienced between God's power and that of *uchawi* and *uganga* have led to the interpretation of religious power as strong *uchawi* (Tanner 1967). The role of cosmological beliefs and their relationship to the interpretation and control of locally perceived risks will be explored later on in the thesis.

[21] *Mlokole* (sing.) is literally translated as born again Christian, revivalist christian or fanatic. It was used by the community and the worshippers themselves to describe a particular church and its followers.
[22] These three groups of supernatural beings were referred to regularly by the majority of research participants, although interpretation of their specific forms and translations were often confused. For some *mashetani* described all supernatural beings other than God, believed to be evil. For others *mashetani* were evil beings, *mizimu* the spirits of dead ancestors and *mapepo*, uncontrollable and unrelated supernatural beings, similar to the coastal Swahili interpretation of *majini*.

4.5 Conclusion

The description provided here of the two field sites has been necessarily partial. It is based on my experiences whilst in the field and the information presented to me either formally or informally. I have focused on the descriptive elements most relevant to the argument of this thesis. 'Ethnography' has been used both to describe the practice of ethnographic fieldwork and the ethnographic monograph (Seymour-Smith 1986). This chapter is by no means a holistic account of life amongst the communities with whom I lived. Rather, it is a first-hand study of a small community in one particular locale in north-western Tanzania from a period of six months spent living in the area. As such, it forms the descriptive foundation for the analysis that follows. Chapter 5 takes the concept of risk perception as a starting point and explores this in the context of the ethnography presented here.

Chapter 5: Mapping Risk

5.1 The construction of risk perception

Risk perception, it has been argued, is culturally contingent. Classifications of what is risky arise out of culture (Douglas and Wildavsky 1982) since '*which risks, at which level, are acceptable to which groups of people is always a social question*' (Boyne 2003). It is widely accepted that risk is perceived differently in different cultures, given varied socio-historical and socio-cultural conditions (Pool and Geissler 2005; Geissler and Ombongi). However, perception of risk also varies within cultures. This chapter explores this by mapping risk perception from the data collected. First I will explore the contrasting risk priorities for health presented by external research and intervention bodies, as well as by biomedical service providers. Whilst it is generally more acceptable to interpret lay risk perceptions as contingent upon the wider social context, I will demonstrate that categories of risk as defined by 'professionals', such as epidemiologists and biomedical practitioners, are also culturally relative, representing different relative truths and each of which depends on wider circumstances. I will then present case studies to explore how different research methods generate different kinds of data on risk perception. Risk priorities discussed *in situ* and made real through experience were demonstrated to be different to those which people claimed to be concerned about in the abstract. Broadening this argument, I will demonstrate the importance of context to risk perception. I will then consider the role of linguistic translation in my interpretation of risk perception in a culturally distinct setting, showing how different terms for risk were applied by research participants in diverse circumstances, emphasising heterogeneous interpretations of the meaning of risk. Finally, I will demonstrate the heterogeneity of risks raised throughout the fieldwork period, aggregating frequencies to explore general and gendered priorities in risk awareness and management strategies.

5.2 Etic descriptions of risk

5.2.1 Externally funded interventions as socially constructed 'objectivity'

Weber argued that the '*recognition of the existence of a problem coincides, personally, with the possession of specifically oriented motives and values*' (Weber 1949). Whilst not 'personal' in Weber's sense, individuals working within organisations make decisions influenced by paradigms shared within their professional world. In the case of the research sites, recent health interventions were shown to reflect wider funding trends which did not reflect either lay risk priorities for health or the key causes of mortality and morbidity perceived by the local government biomedical services. These interventions were generally informed by wider discourses situated within a politically informed narrative of risk created by, and relevant to, Western policy makers. This narrative was founded within a scientific paradigm, seeking, as Horton (1993) suggests, an '*explanatory theory …quest for unity underlying apparent diversity; for simplicity underlying apparent complexity; for order underlying apparent disorder; for regularity underlying apparent anomaly*' (Horton 1993). In defining this unity and order, risk could then be addressed and managed.

One example of donor-led initiatives which have attempted to unify risk in the research area, albeit derived from evidence-based epidemiology, is that of the District Demographic Surveillance Survey, established by the Tanzania-Netherlands Support Programme on HIV/AIDS Control (TANESA) as one of the components of the Kisesa Open Cohort Study involved in research and interventions against HIV/AIDS since 1995. The research was designed to measure child and adult mortality and fertility in the general population and HIV status in order to '*lay a reliable foundation for epidemiological surveys by registering people's mobility and mortality*'. It also aimed to assess the leading causes of death as '*objective fact*' by comparing '*verbal autopsy*' and open-ended disease history reported by

the respondent with independent review of the report by a Medical Officer and an 'objective' (inverted commas here are those used by the project) algorithm-based diagnosis done by computer. The results suggested that the main causes of morbidity in the area were malaria, schistosomiasis, upper respiratory tract infections and urinal genital infections, and that HIV/AIDS was the single major cause of death among adults aged 15 to 59 years in the area since up to 37% of all deaths in this age group were attributed to the epidemic.

This example demonstrates that research-led health interventions implemented in the District were associated with rigorous epidemiological research. Their role in improving the health of local populations is not in dispute here. Rather, and following Husserl in challenging the constructed supremacy of scientific claims (O'Neill 1995), I suggest that the objectivity on which such interventions have been based has been socially constructed by its own particular cultural and historical (biomedical) foundations. Foucault argued that the historical context and particularly its shaping of what is possible, of what can be seen, determines what at any time is considered to be true (Foucault 1973). In essence, the illness and death experiences related by individuals through verbal autopsies were reduced to unifying and clinically pre-defined disease categories which were then associated with HIV/AIDS as the underlying 'risk factor' for 37% of all mortality amongst adults. Further, the attribution of these deaths to HIV/AIDS conformed to the pre-existent and unified risk priorities of those who had defined the research, funded as a targeted component of HIV/AIDS research. This was then translated to interventions which neatly fulfilled pre-defined funding trends for health. Thus, whilst the risk of HIV/AIDS is real both to interventionists and target populations, it has been constructed as one externally manageable risk within a complexity of other risks.

5.2.2 Local biomedical services and risk assessments as value-laden and partial

Against this international context for risk recognition and prioritisation was the situation perceived through the local biomedical service providers. The partiality of supposedly objective facts was demonstrated most clearly in the presentation of morbidity and mortality data produced by the local ward health centre. The main health problem reported for 2004 by service providers interviewed during the research was malaria in all age groups followed by anaemia and diarrhoea in the 0-5 age group and acute respiratory infection diagnoses in the 5+ age group. Table 5.1 below presents morbidity data for the ward. The figures were cited by the Assistant Medical Officer (AMO) at the time of the research and drawn from records noted in clinical log books. In providing the data, the AMO acknowledged the partiality of the records in a discussion of generalised patient-provider relations and her awareness that many individuals experiencing illness may not attend the local health centre. She also acknowledged the fact that the majority of malaria cases were diagnosed on symptom presentation and with little clinical examination.

Table 5.1: Reported morbidity for ward 2004-5

Year	Age Group	Disease	Total Cases
2004	0-5	Malaria	5240
		Diarrhoea	868
		Anaemia	770
	5+	Malaria	9614
		Acute Respiratory Infection	1918
		Pneumonia	770
2005	0-5	Malaria	2739
		Pneumonia	624
		Diarrhoea	422
	5+	Malaria	4195
		Acute Respiratory Infection	1199
		Unspecified	391

Whilst biomedical personnel were keen to demonstrate their 'medical objectivity', they also emphasised the constraints they faced in accurate and consistent diagnoses of illness presented at the centre. Whilst they did not directly admit possible errors in diagnosis, their

very recognition of these constraints provided evidence of the constructed nature of the risks they prioritised. This was most evident in the reporting of 'non-specified illness' as the third most common illness category cited by health professionals for 5+ age group in 2005.

Their inability to accurately diagnose disease was affected by the inadequate conditions in which they had to work. The lack of laboratory facilities and testing equipment for common conditions such as malaria and schistosomiasis was combined with no means to attain samples and no wider biomedical networks through which to send samples to central laboratories. In fact, the only available referral systems in use at the health centre were verbal referrals of cases deemed sufficiently severe to warrant further investigation. This was a common strategy in the face of frequent presentations of severe illness, despite awareness of the inaccessibility of other hospitals and the likelihood that many patients would instead self-refer to traditional alternatives. The quality of service provided was also constrained by lack of electricity and water to the health centre. It is clear how, under such difficult conditions, risk assessments were necessarily informed primarily by clinical examination and in some cases were erroneous, being affected by season and assumptions about symptoms. Table 5.1 demonstrates the dominance of malaria over all diseases. This was reflected in the illness narratives and risk priorities of the lay population. Whilst it is not in dispute that malaria was one of the most common causes of morbidity and indeed, mortality, in the ward, the data suggested that perspectives of biomedical service providers were coloured by their social position as community members, and that the expectation of a malaria diagnosis influenced disease identification. A health worker stated:

> *'Unfortunately we don't do what, we don't check blood samples because we don't have those reagents, but because they respond, in that way we know that it is malaria… Also in addition to that, the symptoms themselves become very obvious,*

first of all the majority, I don't think all of them have mosquito nets…Because you find <u>our</u> surroundings, firstly, the breeding areas of these mosquitoes, you find a lot of grass in <u>our</u> area, there are ponds of stagnant water. Therefore you find that the breeding places or mosquitoes are still very many in our area.'

[FGD 15/01/06 FNGDN]

In some instances, the desire to conform to biomedical 'diagnoses' of disease was constrained by the social roles of the biomedical personnel as respected members of the local community, subject to the same codes of meaning of illness as the lay population they served. This contradiction was most clearly evidenced in the disparities between service providers' reported and actual action. The illness described as *mchango* provides one of the clearest examples of this contradiction. The Swahili term directly translates as '*intestinal worms*'. It was distinguished by its invisibility to biomedical tests, though it could be diagnosed through divination. Injections and biomedical treatment of the symptoms were believed to result in death. Through such risk perceptions this illness was 'protected' from the intervention of biomedicine. This invisibility inevitably must have led biomedically trained health workers to doubt the existence of *mchango*, and in their reported perceptions and practice they described it as a lay fallacy. In actual practice, however, the health workers perceived *mchango* to be a daily reality and there was in place a regular, though informal, referral system between the health centre and a local traditional healer, renowned for her skills in the recognition and treatment of *mchango*. Thus, whilst health workers conformed to expected norms of biomedical learning and experience in their discourse, their daily realities and their position as members of the community forced them to engage daily with contradictions.

In other data, decisions to attend treatment elsewhere, either in travelling to biomedical services further afield or in visiting traditional healers, were shown to be influenced by

local relations between providers and patients. Dominant cultures within medical practice in Tanzania are such that discourse between patient and provider is often not encouraged (Tibandebage and Mackintosh 2005). Whilst the medical provider (Doctor, Medical Officer, Nurse or pharmacy worker) rarely explained causation nor identified disease to the patient, neither did the patient enquire. For example, Joseph, a farmer in the rural village, aged 49, discussed the loss of his daughter the year previous to the fieldwork. She was 10 years old and, as described by Joseph, had suffered swellings and pains beginning in her legs and slowly spreading over a 2-month period all over her body and ending with swellings in her head. They took her to the local health centre and to the district referral hospital in Mwanza City where she died. When I asked what the doctors attributed the cause to, his response was:

> *'She was … they used to just check her and change medicines, but they didn't tell us what it was.'*
>
> [Joseph, Shambajiji]

On further enquiry, Joseph stated that he considered this to be 'normal' behaviour and felt no sense of injustice at not having any further information. The example is used here to demonstrate the lack of transparency and exchange of information. This may be exacerbated by social hierarchical systems of respect and the enormous deference towards medically trained personnel in Tanzania, particularly by those of lower educational levels. Indeed, Joseph felt that he had no right to enquire further into his daughter's death, given that he had relinquished his control over her health to 'experts' when first taking her to attend biomedical health facilities;

> *'I had just to surrender myself and take her to dispensary …what, to hospital.'*
>
> [Joseph, Shambajiji]

Given the number of economic and social constraints with which biomedical health staff have to contend in providing services, there is little doubt that the partiality of risk perceptions demonstrated is both real and not wholly volitional. Variation in identified health risks between local service providers, external health intervention providers and the lay population within one small geographical area provide clear evidence of the cultural constructions that underlie such perceptions. They also highlight differential power relations between actors, where risk perceptions are partial and informed by unique interpretations of the wider social environment

5.3 Emic descriptions of risk

5.3.1 The meaning of 'risk' through methodological differences

The effect of different methodological approaches on the data collected about risk perception will be explored through three case studies. My hypothesis is that our understanding of either the salience of a particular risk in individual lives, or ranking of risks and perceived ability or willingness to pursue particular risk management strategies, is necessarily influenced by the type of method chosen to investigate these risks. In other words, by issues of framing (Henwood, Pidgeon *et al*. 2008). The women discussed below are those with whom I developed a close friendship and whose opinions I listened to both informally during many months of shared meals and activities and more formally towards the end of the fieldwork when they each agreed to take part in an in-depth interview. I investigated risk as an abstract category in response to the question 'what do you consider to be risky?' through formal interview. I also explored risk perceptions situated or embedded within particular social experiences through informal discussions and shared experiences and more formally in life narrative approaches during in-depth interviews.

Eliza, who spent many hours with me improving my linguistic and cultural knowledge of Sukuma, was 24 years old and not yet married. She lived with her parents in a compound constructed of burnt bricks and corrugated iron roof. This latter was considered a family achievement since previous houses had been constructed of mud bricks and thatch. Her father had a second wife and family in the centre of Barakijiji. Eliza did not consider this a problem, especially since the two wives never met. Eliza herself had chosen to delay marriage, since she was lucky to gain a secondary education to Form 4 and wanted to find work and live independently before settling down. The family earned its main income from cash crop farming although reliance on subsistence crops meant that food could be variable throughout the year. Her parents were increasingly reliant on her elder brothers who had invested in the rice import and export business. In fact, Eliza had recently also followed her brothers' example, hoping to make a profit from rice. She currently had little work other than farming family land, although she hoped eventually to live away from the village, having broadened her horizons previously by living in Dar es Salaam. She considered herself a regular churchgoer but did not attend every week, although her mother was a fervent African Inland Church regular. Although not active in church activities, Eliza was involved in local community youth groups where she held a prominent position as accountant, which reflected her reputation in the group. She felt this was useful as she learned from seminars and visitors who came to discuss issues such as HIV and income earning opportunities for youth. In her social position as dependant on her parents, she was not obliged to attend funerals and rarely did. Consequently she had a lot of free time.

In discussing risk in the abstract during an in-depth interview, Eliza specifically mentioned HIV, sexually transmitted diseases, malaria, the problem with dirty water and theft. At this time, she referred explicitly to an increase in her knowledge and awareness of HIV and STDs as a direct result of her involvement with the youth group. This increased awareness,

she claimed, enabled her to understand the 'real' cause of her brother's illness, who had been told by the hospital staff that he had TB. The ways in which Eliza thought about HIV in the abstract and in relation to her own direct experience highlight how one individual can have more than one meaning and interpretation of HIV. In the abstract she attributed her increased knowledge to her exposure to education through participation in the youth group and stated her awareness that her brother died of HIV. During her life narrative, recorded as part of the IDI and in informal conversations during PO, another 'explanation' for the death of her brother became apparent. She claimed that her brother, who officially died of HIV related TB, was actually bewitched by their cousin, the daughter of their elder uncle. This woman had never been on good terms with the rest of the family, and was believed to have inherited the power of witchcraft from her mother. Since blaming this woman for the death of her brother, the whole family had excluded her. Eliza situated the death of her brother within the context of another death, that of his child, as evidence:

> *'we know, you know you can know someone even when she comes at home there, because that sister, our brother married and got a child but that child passed away, she came to the funeral without being told by anybody, then how did she know it? When father asked her she answered that I was just coming to greet you at home and I just found this funeral. But how did she know it?*'
>
> [Eliza, Katijiji]

On the one hand, Eliza was keen to demonstrate her abstract awareness of HIV as a risk in itself. In probing deeper and situating her understanding of this risk in the real context of her experience, she attributed the HIV and death to a different risk, that of witchcraft, which was not mentioned when discussing what she considered to be risky in the abstract.

A further 16 risks were raised by Eliza during the life history interview and PO. The majority of these were social risks, including the risk of exposure to social gossip, that of jealousy, the risk of not participating in community life and that of trusting others too easily. Similar social risks were prioritised by Pendo, my host during my stay in Shambajiji and the second case study presented here.

Pendo's social situation contrasted somewhat to that of Eliza. Pendo, aged 47, lived in Shambajiji, with her husband, youngest son, and three grandchildren. Their compound was composed of four buildings, three of which were constructed of mud bricks and thatch and one with burnt mud bricks, a stone foundation, and corrugated iron roof. Due to diversification of agricultural activities, including subsistence farming, livestock and milk sales, combined with a relatively large acreage and the ability to stockpile food, they were less exposed to seasonal constraints that affected other households. Pendo had had little opportunity to study when young and finished school in Standard 6. Similarly to Eliza, Pendo was involved in local community activities, being a strong AIC church attendee and an active member of several organisations including the village government, a locally elected committee supporting the Village Chairman, orphan society, and a local women's group. She was also the chairperson of her local microfinance or HISA organisation. Additionally, and unlike Eliza, she was closely involved in neighbourly relations of exchange and co-operation and either herself or her husband would always volunteer or be present in community development activities such as the digging of traditional wells or funerals.

The abstract risks raised by Pendo when specifically questioned during an in-depth interview were fewer than those embedded in her life history narrative during the same interview or those commented on during participant observation. In this case, the risks were HIV, hunger and the lack of rains, theft and household or individual success which

she claimed encouraged the risk of exposure to theft. In contrast to Eliza, Pendo's acknowledgement of HIV as an abstract risk was directed at an 'other' who had succumbed to 'lust'. Her awareness of the risk of HIV came through her attendance at various educational seminars. These opportunities were less common in Shambajiji than Barakijiji. This made Pendo's situation quite unique in the village. Pendo referred to 15 risks in the context of her life history interview and during informal conversations, only one of which was also raised as an abstract risk: that of hunger and the lack of rains. It is likely that this risk dominated Pendo's worldview due to her family and neighbours' heavy reliance on agriculture. What was most striking about the risks Pendo raised during life history narratives and participant observation was the dominance of social risks, none of which were raised when asked questions about risk in the abstract. In this case, the risks mentioned were witchcraft, jealousy, the consequences of living alone, trusting too easily, not sharing food when requested and mixing with different types of people. The combined risks of refusal to share food and exposure to witchcraft were described in explanation of her childbearing problems during her life history:

Pendo: that woman was saying that "I have taught so and so a lesson, she used to be very arrogant, but this time I have taught her a lesson".

...

ND: But why do you think she decided to do that?

Pendo: She said that I was arrogant

ND: Arrogant?

Pendo: She told others that "we went to visit so and so but she refused to slaughter a chicken for us"'

[Pendo, Shambajiji]

This emphasis on social risks was again repeated in the example of Mariam, with whom I spent much time during the research and the third case study. Mariam lived in Barakijiji with her husband and seven children in a compound closely located to her neighbours and composed of two houses, both of which were constructed of mud bricks, one with thatch and one roofed with corrugated iron. This was prevented from blowing away with large rocks. One wall of this house remained supported throughout much of the fieldwork period by a large tree trunk, since it was in danger of collapse. The household relied on seasonal and petty income through daily farm labour from both parents and through subsistence farming activities. Family subsistence varied considerably by season. They had experienced difficult periods when she and her husband were forced to take their children to their grandparents or neighbours in order to feed them. Mariam rarely travelled outside the village; only occasionally for treatment seeking or to attend funerals in nearby villages. She stated that she preferred not to walk around too much since this encouraged idle gossip. Thus, whilst she could have exploited her social position due to her role as wife of the village chairman, she preferred to remain on the periphery, choosing instead to attend Roman Catholic church regularly and spend time with those she felt close to and trusted. In fact, she felt threatened at times by her husband's position, since this exposed her to the jealousy of others and caused accusations of malpractice on either her or her husband's part. She was, however, involved in a local microfinance group and attended funerals in both her *mtaa* (street) and sub-village. Further, her position was also complicated by the reputation of her brother, who was one of the richest residents of Barakijiji, and by her relatedness and long history with many in Barakijiji since her family had always lived in the area.

Some of the precariousness of Mariam's social situation became evident during participant observation and life history narratives, but none of this was transposed to the abstract risks she raised. These latter were few: HIV, malaria and poverty. In contrast, Mariam referred

to 24 different risks embedded in her life history and in informal conversations through participant observation. Once again, the dominance of social risks was evident. In Mariam's case, the risks highlighted were infidelity, witchcraft, social gossip, jealousy, not taking part in community life, trusting others too easily, not sharing food when asked, women being seen walking round at night as risking their reputation, success and the inability to have a child.

One particular example, taken from PO fieldnotes, highlights the social risks of jealousy towards which Mariam felt exposed as a direct result of her social position. The incident is presented here in two sections. The first was recounted to me as explanation for a particular problem and the second I experienced firsthand.

> '*On Monday this week before I had arrived, when she had been doing the washing and had fallen over, she explained, she had discovered when she arrived at the house that someone had put some minyaa*[23] *that had been cut down the middle in front of the door. She hadn't touched it but had removed it from her path with a stick. A little later she had fallen over and badly bruised her lower back and arm. She said there had been no reason for her having fallen over and that she had fallen heavily and the rest of the day she had been like an ill person or even a drunk, she had not been able to move much or to do anything. She blames the minyaa for this and says that she thinks it was meant for her because people are jealous that she is working for the 'mzungu'. Whether her accident was actually caused by the minyaa is difficult to establish but she believes this to be the case.*
>
> [Fieldnotes: 01/12/05]

[23] *Minyaa* is a plant renowned for its association with traditional practices. These include its use to target individuals with malevolent medicine and as an identification tool during divination. It is widely available since it is used in hedges in rural areas.

Several days later, I accompanied Mariam to a traditional healer living approximately 40kms from Barakijiji and with no social associations to the village.

'Without asking Mariam what was wrong or what her symptoms were he began chasing a small young chicken around his compound. In this task of catching the chicken he was helped by his daughter. Mariam and I sat and watched and if I hadn't known the chicken was running for its life (literally) I would have found the event funny. Eventually the chicken was cornered and caught. It was given to Mariam and she was told to walk away to a distance where she was alone and couldn't be heard and to talk to the chicken, opening its mouth to put her words inside while she did so. I accompanied her and then left her to climb a rock and do what she had been told to do. She later told me that all she had said to the chicken was that she asked for its help in identifying her illness and its cause. She didn't speak of the symptoms to it. She also had to spit in its mouth so that it would carry her identifier. On our return she was told to pass the chicken directly to the healer or else it would get confused. So she carried the chicken back and returned it to the healer. Together they held it while he made two small slits at either side of its neck with a sharp knife and it struggled a little and then died. As I watched, the healer (with Mariam helping him by holding out the wings) sliced the chicken open so that all the insides were clearly visible and he could examine every part closely. He then proceeded to identify each of her symptoms by examining the chicken. I was told that he was able to do this through communication with his mizimu[24]. He said she had a bad hip on her right side (where she has been experiencing the most pain), that she has a urine infection, that she has some problems with her heart (she has been experiencing heavy beating and a feeling of having her heart beat very fast for no identifiable reason since the accident). After identifying the symptoms he then went on to say who had caused the symptoms. He said this was someone who lived close

[24] Ancestral spirits, see Chapter 4 for explanation.

to her and who was being helped by others but who has long held a dislike for her. She immediately concluded that it was a close neighbour of hers (who had previously been involved in cursing her years ago) and she was also told that this neighbour comes in to play with her at night. He went off to make some local medicine for her and we were invited in to have food… After eating we went back outside and Mariam went off with his assistant (he described her as his student) to be washed in the mixture. She was then given some to make tea with to take home with her and more to surround her house so that she would be protected from this woman's enmity in the future. Mariam believes this will work.

[Fieldnotes: 03/01/06]

Another incident raised during her recorded interview and repeated informally through participant observation, though with a different interpretation, demonstrated the layering of risk exposure, influenced by method. This contrast reflected that of the description of Eliza's brother's death of HIV/witchcraft cited above. Mariam initially described the unfortunate event of her niece falling out of a tree when playing with other children outside the Catholic Church one Sunday, an accident which led to her death. In her formal account of this incident during her IDI, she described it as the '*work of God*' and as uncontrollable. Informally, Mariam referred to the same incident while discussing the jealousy of others. This time she attributed the cause of her niece's death to witchcraft due to the jealousy of others in Barakijiji towards her family, since other children who fell from the tree didn't die but survived. What is interesting here is how her interpretation changed given the differing contexts in which she discussed the same incident. This, I suggest, provides clear evidence that data collected on the prioritisation of risk is influenced not just by temporal proximity, experience, and wider social discourses but also by method.

Further, what is noteworthy and consistent between all three case studies is that the number of risks embedded in informal discussions and in life history narrative during the IDIs greatly exceeds the number raised when risk is considered in the abstract. This finding is not surprising given two factors: the comparative length of time spent with women discussing risk in the abstract and that spent in PO and life history discussions, and, as has also been recognised elsewhere (Tulloch and Lupton 2003), the fact that risk as an abstract category is a challenging concept to consider. In fact, most people find any abstract reflections on their life fairly difficult.

The three case studies also demonstrate that the effect of method on response occurred more frequently with certain types of risk than others. These were those, like social risks, which are rarely, if ever, prioritised by external agents. For example, amongst the 40 individuals whose risk priorities were analysed in detail, certain risks were raised consistently and predominantly in the abstract but figured much less as risks in people's daily lives. These largely included different types of health risks, particularly HIV, STDs, TB, pneumonia, bird flu, tick fever, cancer, herpes zoster and ebola. Other risks in this category included accidents, risk of snakes, deforestation and the risk of rape. Whilst some of these were mentioned by only a few informants, others were raised more frequently as abstract risks. What the majority of these appear to have in common is that they are infrequent events (e.g. snake bites), events mediated through external awareness raising campaigns (e.g. HIV, STD or deforestation) or heard about through the radio or print media (e.g. ebola and bird flu). What is also interesting here is that the majority of the risks cited in the abstract were risks that were considered to affect the 'other'. This was the case with ebola, bird flu, deforestation and rape for example. In the case of bird flu, awareness was heightened through the media. Whilst research participants tended to ignore the geographical distance to their own risk exposure, they distanced themselves from the risk

by ascribing risk exposure to those they considered poor and unable to seek treatment. A male youth in Shambajiji explained:

> *'Another thing to fear perhaps the diseases, as there have been some epidemics, for example, Bird flu, for a person who has no income if he suffers from Bird flu, then can't be treated. That's why we should also fear for the epidemics of the diseases.'*
>
> [FGD 21/02/06 AYTHMAMA]

It is interesting to examine the case of HIV within this context. This was the most frequently mentioned risk amongst all informants, cited in the abstract by a total of 22 of the 40 informants. Additionally, HIV was embedded as a recognised risk in life history narratives but to a much lesser extent: only 13 of 40 informants discussed it. Thus, since HIV was predominantly considered an abstract risk, I suggest that it may be considered emically as a risk whose salience was heightened in the abstract through regular awareness campaigns, but which was largely considered as one which affects 'others' and was thus not prioritised in the everyday experience of people's lives.

In contrast, a range of other risks were rarely considered when informants were asked to think about abstract risks, but rather predominated in informal discussions and life history narratives. Prominent amongst these were social risks mentioned in the case studies presented above. In particular, informants mentioned theft, infidelity, witchcraft, exposure to social gossip, jealousy, refusal to take part in community life and social isolation, trusting too easily in others, not sharing food when asked by neighbours, divorce or death of a parent for children, success itself, female reputations and the risks of quarrelling with neighbours. Of these, witchcraft was more frequently discussed than other social risks, both as a risk in itself and as related to or as a direct consequence of other social risks such

as jealousy, success, and refusal to share food. This suggests that social risks dominated the daily lives of individuals and were likely to be the most subject to risk aversion strategies.

A final, third category of risk in terms of the way the data were generated were those risks mentioned both during informal discussions and in life history narratives, and concurrently prioritised as risky in the abstract. These types of risk were often, though not always, those for which risk management strategies were more likely to have been implemented. For example, the risks of living in unclean environments (although definitions of cleanliness differed widely between individual households, and what was acceptable in one was not considered acceptable elsewhere), were commonly controlled through regular sweeping and different methods for storage of food and water. In addition, lack of education was commonly recognised as risky, both in the abstract and through life history narratives. The risk associated with lack of education was controlled to varying degrees by different individuals, ranging from careful household management strategies to divert finances towards secondary education, placing children with relatives who were better able to educate them, to encouraging the majority of children to attend school. Further, awareness of the constant threat of hunger and the unpredictability of rainfall meant that many households pursued diversified crop management strategies, planting only those crop varieties which would survive drought, and stockpiling in times of plenty. A final risk which appears in this category is that of malaria, but this is perhaps not surprising. Malaria was the most commonly experienced disease in the area and it is likely that the perceived inevitability of infection due to habituation may contribute to a lack of consistency in risk aversion strategies.

5.3.2 The meaning of 'risk' in translation

The meaning of 'risk' that I adopted in the light of my literature review was 'the likelihood or possibility of danger', that is, a concept that combines both negative outcome with likelihood of occurrence. This was largely drawn from a western paradigm. Exploring the local meanings of risk and identifying the subtleties of terms which may highlight culturally relevant concepts difficult to translate is fundamental to understanding risk perceptions within a non-western context. These will elicit a 'thicker' understanding of the true meaning of risk for people in the field-sites (Geertz 1973). To do this I will present the terms used locally to describe and discuss concepts relating to 'risk'. I will then examine how these terms are used in context and how they differ in meaning from those used in English. Finally, I will discuss the implications of these translations for interpretations of 'risk perception'.

Initially I translated the term 'risk' to the Swahili term *hatari* after discussions with colleagues from Tanzania and the use of web-based and book-form English-Swahili dictionaries. However, since this term is used to convey both 'danger' and 'risk', I made the decision to use both the term *hatari* in describing the concept to people in the field-site, and the phrase *uwezekano wa hatari* to convey the 'possibility of risk or danger'. Additionally, since the research was to be conducted in the local vernacular, Sukuma, as well as the national language, Swahili, terms were further translated. The term *hatari* is generally translated to Sukuma as ***bubi*** (sing.) or ***mabi*** (plural) and conveys a similar dual meaning. Given that use of the two languages was often interchangeable during the fieldwork, use of these different terms also became interchangeable.

A thorough review of the data collected for this study showed that the term *hatari* was by far the most commonly used term to refer to risk-like concepts. This was clearly influenced by my own use of the term, but there were also many instances in which informants raised

the term independently either during focus group discussions and in-depth interviews, or during participant observation. When used independently, the word *hatari* was a term with many different meanings. It was adopted when describing unforeseen and unpredictable dangers such as car accidents, house fires or children falling over cooking pots. For example, a female youth in Shambajiji explained

> *'Maybe at the time when you are preparing your fields for cultivation, you will clear your garden and after that you will start collecting the trees and the shrubs that you felled and burn them, but by bad luck the fire may spread and burn other people's property without expecting, that too is risky [hatari]'.*
> [FGD 21/02/06 AYTHFEMA]

It was also applied to chronic conditions which could have more serious repercussions such as hunger, promiscuity or the lack of rains. For example male youth in Shambajiji described the lack of rain as *hatari*:

> *'Also the other risk that we are facing is the scarcity of rainwater, this is a big risk [hatari].'*
> [FGD 21/02/06 AYTHMAMA]

The term was further used to describe social risks such as jealousy as Medard, an AIC pastor explained; '*wivu ni hatari zaidi*' ('jealousy is most dangerous'). Living at a social distance from peers was considered *hatari* by Serafina, amongst others, a tailor in Barakijiji, '*hatari ni kuwa mbali na wenzio, kujitenga tuseme*' ('risk is being far from your peers, to isolate oneself').

Group discussions proved useful forums to discuss the abstract meaning of *hatari.* For example, a male participant in a group discussion in Shambajiji explained; '*kuwa na hatari ni kitu ambacho kinatishia maisha. Kitishio kinachotishia maisha ni hatari' ('to be at risk is something that threatens life. Threats, those things that threaten life are hatari)*. However, explanations regularly included examples such as the following quote from a female youth in Shambajiji:

> *'Uwezekano wa hatari ni kupuuzia kitu ambacho umezuiliwa kutenda ndiyo maana kunakuwa na ule uwezekano wa hatari kwa mfano kwenye mabalabala kunakuwa na uwezekano ule wa kuangalia unaambiwa abiria angalia kushoto, angalia na kulia, lakini wewe unaacha hata kuangalia ukishapita tu barabarani unavuka moja kwa moja ndiyo maana kunatokea ajari.'*
> *'Uwezekano wa hatari is to neglect something you have been forbidden to do, that's why there is that risk possibility, for instance along the roads, there is that possibility, you are told that you should look left and right, but you don't even look, once you reach to the road you just cross direct that's why accidents occur.'*
> [FGD 21/02/06 AYTHFEMA]

Male youth also used examples to describe what they understood by *hatari,* as the following quote demonstrates. In this case, the youth is discussing risky sexual behaviour:

> *'lakini sisi vijana hatufikirii hatuangalii hata mbali, unajua ukidanganywa ukipewa hata shilingi mbili unajua kwamba hapa nimeulamba nimepata unakuwa tu kwenye mambo yale ya uasherati, unakuwa hata haujali, hauna watoto hauna familia, unakula bure unalala bure, hauna hata unalowaza, unaanza tu kujitafutia fedha zako kununua vipodozi ndiyo maana zinatofautiana hizo hatari.'*

'but we youths don't think, we don't even see far, you know if you are deceived and you are given even just two shillings you think that I am a winner, so you just engage yourself in promiscuity, you don't even care, you have no children or family, you get free meals and sleep just free of charge, you have got nothing to think about, you just begin looking for your own money to buy cosmetics that's why risks differ [between youths and adults]*'.*

[FGD 21/02/06 AYTHMAMA]

Several other terms to describe risk-like concepts were used during the research. These were used initially by informants themselves, and can thus be defined as truly 'emic', to discuss the concept of risk. Three of these terms are verbs: *kuponza*, meaning 'to expose something to danger', was used principally in discussions about sending children away to study outside the direct control of parents and exposing them to the 'risks' of independence. *Kuhofia* means 'to fear' and was used primarily by parents when discussing the meaning of *hatari* as applied to children. Finally, the term *kubahatisha*, meaning 'to take a chance', was used by informants. This latter is note-worthy since it implies active risk-taking rather than passive exposure to risks. It was used primarily in discussions of agriculture and success with crops given unpredictable and fluctuating weather conditions. It was also used to discuss children being sent away to study, both of which suggest active decision-making, balancing risk against potential gains in the future from accruing benefits. In addition, *kubahatish*a is used to describe a woman's act of accepting a husband who may or may not prove to be beneficial for her future.

There were four other terms used in informants' descriptions of 'risky' situations The term *wasiwasi*, meaning 'anxiety' or 'misgivings', was used most frequently. It commonly described anxieties about exposure to the jealousy of others and is used in relation to HIV. *Mashaka*, meaning 'worries', 'concerns', or 'fears' was used in describing the meaning of

hatari itself, as well as in expressing fears of future negative outcomes of current uncontrollable conditions, such as fears of potential witchcraft accusations, and the fear of insufficient food following periods of drought. The term *madhara* was used more frequently than *mashaka*, but less so than *wasiwasi*. *Madhara* means 'violence', 'loss', 'hurt' or 'injury' and was most commonly used in describing the negative outcome of 'risky' behaviour, such as the social segregation of individuals who have inflicted hurt or loss on communities through theft or witchcraft. It was also used to describe the meaning of *hatari* itself as something which brings *madhara* (loss or hurt). Finally, the term *balaa* was also used, though less frequently. *Balaa* describes misfortune specifically related to witchcraft. Commonly this was applied to descriptions of events for which the cause was unknown but the generalised implication was the influence of malevolence through sorcery or witchcraft, more so when the damage inflicted was targeted at the whole community rather than at individuals.

5.4 Quantified descriptions of risk priorities

Amongst the 40 individuals whose responses were analysed in detail, a total of 88 risks or risk categories were raised. These included all instances where an individual discussed an event retrospectively as being 'risky' or causing risk exposure, or where they discussed risk abstractly either through informal or formal conversations. This highlights both the complexity of 'risk' and the extent of awareness of risk as a concept in both field sites. Further, the quantity of occurrences of certain risk categories over others produced a clear representation of which risks dominated risk discourse in the field sites. As such, Table 5.2 below presents an overview, by sex, of all risks raised by the 40 individuals whose worldviews were explored in some depth. Risks are presented in order of the number of women and number of men that mentioned each risk. This table should be interpreted with caution; whilst it provides a quantified overview of individuals' references to risks, it does

not attempt to explain the respective salience of each risk in the daily lives of those who perceive them, nor does it differentiate between the different contexts in which each risk was raised. The latter has been presented in the previous section in this chapter, whilst the former is the aim of the rest of this thesis. Finally, the risks referred to in the table are only those mentioned by the 40 villagers with whom I formed the closest relationships. Other risks may be discussed in context throughout the following chapters, drawn from the participant observation field notes insofar as they provide illustration to particular arguments. To highlight the types of risks prioritised by research participants, the data is re-presented in table 5.3. This presents an overview of risks aggregated into etically defined categories. This is also ranked in order of the number of women that mentioned each category of risk.

If risks can be prioritised by calculating how widely they are mentioned amongst the 40 informants, then the following individual risks appear to be most salient in the field sites, ranked in order of number of people mentioning them: witchcraft, HIV, hunger and the lack of rains, dirty water and the diseases this may cause, theft, the risk of selecting wrongly between traditional and biomedicine and malaria. It is not surprising that witchcraft was mentioned more frequently than any other risk, given that it dominated embedded risk discourse. However, it was rarely raised as an abstract risk, suggesting emic awareness of its specificity to particular cultural contexts and the everyday nature of this type of risk exposure. In fact, in asking which was more risky, HIV or witchcraft, some informants claimed that witchcraft was more risky since individuals were less capable of controlling their risk exposure given the uncontrollable nature of social relations. Despite this, these same individuals had implemented specific aversion strategies to decrease risk exposure. These included sleeping with a bible under their pillow, praying for protection at night and performing *tambikos* (traditional practices showing respect to the ancestors with

the application of traditional medicine). Others, however, state that they can do nothing to prevent the risk.

Table 5.2: Overview of references to different risks by 40 informants

Risks	Female (23)	As % of all women	Male (17)	As % of all men
HIV	18	78.26	9	52.94
Witchcraft and witchcraft related illness	18	78.26	12	70.59
Hunger/lack of rains	14	60.87	9	52.94
Theft	12	52.17	10	58.82
Dirty water	12	52.17	11	64.71
Selecting between bio and traditional treatment seeking	11	47.83	9	52.94
Malaria	11	47.83	8	47.06
Jealousy	9	39.13	7	41.18
Living alone	9	39.13	1	5.88
Mchango	9	39.13	7	41.18
Infidelity/men with more than one partner/wife/adultery	8	34.78	3	17.65
Divorce for children/death of mother/death of parents	8	34.78	3	17.65
Trusting too easily	7	30.43	3	17.65
Women being beaten by husbands/children being beaten by parents or at school	7	30.43	0	0.00
Unclean surroundings	7	30.43	3	17.65
Children away from home and out of control	7	30.43	3	17.65
Drunkenness	6	26.09	5	29.41
Voluntary or involuntary social exclusion	6	26.09	2	11.76
Inability to have children for women	6	26.09	3	17.65
Social gossip	5	21.74	0	0.00
STD	5	21.74	2	11.76
Not sharing food when asked	5	21.74	2	11.76
Success	5	21.74	4	23.53
Poverty	5	21.74	5	29.41
Lack of education	5	21.74	6	35.29
Occupational risks	5	21.74	3	17.65
Women giving birth at local health centre/bad health services	4	17.39	2	11.76
Fighting	4	17.39	1	5.88
Hyena attacks/ wild animals/cattle grazing/crocodiles	4	17.39	5	29.41
Females walking round at night or hanging out in bars	4	17.39	0	0.00
Manjano (Yellow Fever)	4	17.39	1	5.88
Inadequate household infrastructure such as cooking inside main house/lack of toilet	4	17.39	1	5.88
Family disputes over land/ inheritance of land by wives	3	13.04	2	11.76
General health	3	13.04	1	5.88

Risks	Female (23)	As % of all women	Male (17)	As % of all men
Injections when have mchango/witchcraft	2	8.70	2	11.76
Murder	2	8.70	0	0.00
Convulsions	2	8.70	0	0.00
Bedbugs/Siafu/Insects	2	8.70	0	0.00
Vomiting & diarrhoea	2	8.70	3	17.65
Defecation in shamba	2	8.70	2	11.76
Snakes/Insects	2	8.70	1	5.88
Tick fever	2	8.70	2	11.76
Risks of family planning methods	2	8.70	1	5.88
Forced early marriage	2	8.70	0	0.00
Risk of having nothing to fall back on in case of misfortune	2	8.70	2	11.76
Speed on roads/accidents	2	8.70	4	23.53
Failure to perform tambiko	2	8.70	3	17.65
Danger of mixing with different people	2	8.70	1	5.88
Measles	2	8.70	0	0.00
Risk of offending neighbours /relatives/ quarrelling	2	8.70	3	17.65
Rape	1	4.35	0	0.00
Independence of women e.g. bicycles for husbands	1	4.35	0	0.00
Risk of selling crops with low profit	1	4.35	0	0.00
Lack of area to cultivate	1	4.35	0	0.00
Spirit houses - large and small	1	4.35	1	5.88
Slashing with *panga* (machetes)	1	4.35	3	17.65
Pesticides/touching hot things/small accidents	1	4.35	1	5.88
TB	1	4.35	2	11.76
Pneumonia	1	4.35	0	0.00
Cultivation without shoes	1	4.35	2	11.76
Bird flu	1	4.35	0	0.00
Animal illness/disease	1	4.35	0	0.00
Long distance to travel to school	1	4.35	0	0.00
Unwanted pregnancy	1	4.35	0	0.00
Giving birth with traditional midwives	1	4.35	0	0.00
Burying a foetus or incomplete child in a graveyard	1	4.35	0	0.00
Construction	1	4.35	1	5.88
Sleeping inside with candles/house burning	1	4.35	1	5.88
Drowning	1	4.35	1	5.88
Child whose teeth grew on upper gum first	1	4.35	1	5.88
Stigma related to scarring	1	4.35	1	5.88
Maziwa machafu (Unclean breastmilk)	1	4.35	0	0.00
Herpes zoster	1	4.35	0	0.00
Cancer	1	4.35	0	0.00
Risk of looking and dealing with the consequences and not with the risks/lack of future perspective	0	0.00	3	17.65

Risks	Female (23)	As % of all women	Male (17)	As % of all men
Mourning over death of disabled person	0	0.00	2	11.76
Unripe cassava	0	0.00	2	11.76
Lack of belief in God/lack of fear in God	0	0.00	2	11.76
War	0	0.00	1	5.88
Poison	0	0.00	1	5.88
Refusal to become a healer when called by spirits	0	0.00	1	5.88
Relocation due to social problems	0	0.00	1	5.88
Reading books	0	0.00	1	5.88
Deforestation	0	0.00	1	5.88
Customs & traditions in general	0	0.00	1	5.88
Forced movement/relocation	0	0.00	1	5.88
Ebola	0	0.00	1	5.88
Not knowing how to cultivate	0	0.00	1	5.88

Table 5.3 Risks aggregated by category

Risk category	No of women who referred to substantive category (% of all women (23))	Total risk references by women (% of all risks raised by women (300))	No of men who referred to substantive category (% of all men (17))	Total risk references by men (% of all risks raised by men (200))
Social risks (excluding witchcraft)	22 (96)	87 (29)	15 (88)	44 (22)
Health risks (diseases)	23 (100)	40 (13)	11 (65)	25 (12.5)
Witchcraft & supernatural risks	19 (83)	25 (8)	13 (77)	21 (10.5)
Lifestyle/behavioural risks	18 (78)	13 (4.3)	10 (59)	8 (4)
Environmental/hygiene risks (including animals)	16 (70)	23 (8)	13 (77)	16 (8)
Poor harvests/ agricultural risks	14 (61)	15 (5)	10 (59)	12 (6)
Treatment seeking risks	12 (52)	18 (6)	10 (59)	13 (6.5)
Reproductive health risks	9 (39)	33 (11)	5 (29)	15 (7.5)
Economic/occupational risks (excluding agriculture)	9 (39)	13 (4.3)	8 (47)	11 (5.5)
Violence	7 (30)	15 (5)	6 (35)	5 (2.5)
Ignorance/lack of education	5 (22)	5 (1.67)	6 (35)	9 (4.5)
Accidents & miscellaneous risks	4 (17)	6 (2)	4 (24)	8 (4)

Hunger and the risk of unpredictable rainfall were cited regularly by informants, both informally and in formal interview contexts. This is unsurprising given the dependence of

both those involved to a greater or lesser extent in agriculture and the centrality of subsistence farming to the majority of households in both field sites. Commonly, the past was idealised by informants who claimed that rainfall was more dependable and predictable, falling in two distinct seasons. At the time of the research, in contrast, this element of predictability was felt to have decreased, lending hunger and reliance on unpredictable rainfall a greater weight amongst risk priorities. Without reviewing rainfall data for the region over time, it is difficult to assess the 'objective truth' behind the perception that the element of chance had increased in terms of livelihood in recent years, or whether it was, in fact, expectations and needs that had increased. Whichever the case, Mariam from Barakijiji, who was primarily reliant on farming, described the perceived change and resultant increase in risk:

> *'Because even this agriculture is not like that of the past years, that it rains and someone is just committed that let me go and really cultivate and get a certain quantity of food so that I too can have a lot of food at home. But right now, someone cultivates knowing that even if I cultivate I won't get a certain thing, even these cassava we just plant them for a game of chance, because if that rain continues to be like that then that cassava would lack fertility.'*
>
> [Mariam, Barakijiji]

Whilst risks of hunger were reported consistently amongst informants and attributed to a single cause, lack of rainfall and the risk of exposure to the problems of dirty water were, rather, experienced and perceived differently between different individuals and households. In other words, what was considered a risk in terms of exposure to dirty water for some was considered of benefit to health by others. Perceptions of clean water were found to be widely inconsistent, best illustrated through views of boiled water. For some, it was sufficient to only boil water in the rainy season, given that the rains brought

additional risk to drinking water from local springs because of the common practice of defecation in fields and consequent leaking of pathogens into the springs. This was much less likely during the dry season. For others, the very act of boiling water caused discomfort and was perceived as a health risk because '*we are used to it* [the consumption of unboiled water]', and for yet others, the act of boiling water spoiled it with the taste of charcoal. Finally, decisions about whether to boil water depended on one's water source. For example, Mary, a 54 year old widow, originally from Ukerewe, had listened to the advice of others and if she collected water from the lake would boil it because *'they say that the lake water is bad'* , but if she collected it from the well, felt there was no risk and therefore no need to boil it. In contrast to the embedded awareness of the general problem of dirty water, specific water-borne diseases were usually only raised in abstract discussions of risk. These most commonly included amoeba, schistosomiasis and typhoid.

Not withstanding the small number of participants from whom I collected data, what is still interesting to note from both Table 5.2 and 5.3 above, is the gendered differentiation of risk priorities. Whilst women appeared to give equal salience to HIV and witchcraft as perceived risks (both mentioned in 78% of cases), men, on the other hand, seemed to prioritise the risk of witchcraft over that of HIV at 70% and 52% respectively. In addition, hunger was raised more frequently by women (60% of cases) than men (52%), unsurprisingly, since women were primarily responsible for household food provision. Theft was given similar priority amongst both men and women, who both explained feelings of vulnerability, either in relation to material wealth such as cattle or household possessions or due to previous experience. Social risks were raised most frequently of all aggregate risk categories as shown in Table 5.3. Other commonly cited social risks included jealousy, which was raised by both men (41%) and women (39%), and the danger of living alone, although the latter was, again understandably, raised much more frequently by women (39%) than men (6%) given that it is women who are vulnerable to land

infringement by neighbours, injustices in land inheritance practices and accusations of witchcraft and witchcraft killings. Given both dependence on neighbourly assistance during times of economic stress and their need to uphold their social reputation, it is also perhaps unsurprising that women felt more vulnerable to issues of trust in neighbours (30% as opposed to 18% amongst men) and the risks of not involving themselves in community life (26% in contrast to 12% amongst men). Finally, it is noteworthy to highlight the starkest dissimilarities between men and women in the risks they highlighted during the fieldwork. Men tended to be more concerned about lack of education than women, 31% and 22% respectively, whilst women were more concerned about their reputation (17%), a risk not raised by any men. This was also clear in familial risks which were prevalent in women's discourses but rarely prioritised by men. These included divorce or the death of parents (men: 18%, women: 35%) and domestic violence (men: 0%, women: 30%).

This brief quantitative overview has provided a useful description of the types of risk prioritised in both field sites. As was presented in Table 5.2, the diversity of specific risks was wide. Moreover, there was no individual during the research who voluntarily categorised risks within substantive risk categories, other than those related to health. However, such emic classification was rare and many risks were interrelated in presentation. This again implies the complexity of the risk landscape and the difficulties inherent in identifying and managing one risk in isolation since the majority were experienced and perceived as embedded within other risks. Etic categorisation of substantive risk categories presented in Table 5.3, in contrast, aided the presentation of risks perceived as salient in the field sites, but difficulties that arose as a result of attempts to categorise each risk again emphasised the complexity and interrelatedness of the risk landscape. In many cases, the use of such overriding categories as analytical tools would have meant the imposition of structure and order, when, in fact, the data suggested otherwise: that risk is both contingent and disordered. Despite this Table 5.3 highlights a

similar trend in risk categories as that evident in examining individual risks, for example the dominance of social risks referred to during both informal and formal conversations.

5.5 Conclusions

In conclusion, the listing of these 88 risks described in Table 5.2 is obviously only a first step in analysing risk perceptions in Barakijiji and Shambajiji, since the number of respondents mentioning each risk does not necessarily reflect community risk priorities, nor does it help to elucidate either the priorities of individuals or the social discourses which inform prioritisation of specific risks at specific points in time. Subsequently in the conclusion to this thesis I will develop these ideas further by emphasising the contingent and ephemeral nature of risk perception through application of the concept of 'risk moments'. Moreover, seeming heightened awareness of a particular risk does not necessarily translate to the implementation of specific risk aversion strategies. The adoption of such strategies is itself informed by more complex social discourses which will be considered in the following chapters. Further, whilst the 40 individuals provide a reflection of dominant risk discourses in the field sites, the extent of representation of all risks highlighted by all members of the field communities during the research was not quantifiable. I also had the opportunity to discuss other risks with other individuals in less rigorous a fashion. As such the arguments of the following chapters will be largely based on the descriptive risks presented here but may also include other risks or other perceptions of risk which have not been included in this chapter. Finally, this descriptive presentation only skims the surface of understanding where health risks and particularly HIV are situated within this complex risk landscape. The rest of the thesis is devoted to attempts to improve our understanding of these issues in more detail.

Chapter 6: The centrality of the social in risk perception

6.1 Risk perception explored through a social framework

Individual rationale for the recognition and prioritisation of particular risks is influenced by the complex social contexts within which risks are experienced. It is also dependent on a range of social discourses which are drawn on to interpret and develop strategies to control risk. This much has been suggested in previous chapters. Drawing on the fieldwork data, I will explore the relationship between wider elements of social life and risk perception and situate this within a broader social framework. This framework seeks to understand the relationship between social capital and risk perception.

Social capital is a useful concept in the context of risk perception since it captures both the choices of individual actors and the structural mechanisms which may support or constrain them. Furthermore, it focuses on networks and relationships as a resource (Field 2003). However, there is often some confusion about what social capital refers to since there are a multitude of definitions and perspectives. For example, Coleman defines social capital as '*defined by its function. It is not a single entity, but a variety of different entities having two characteristics in common: they all consist of some aspect of social structure, and they facilitate certain actions of individuals who are within the structure. Like other forms of capital, social capital is productive, making possible the achievement of certain ends that would not be attainable in its absence,*' (p.302) (Coleman 1990). His examples include levels of trustworthiness and the extent of obligations. Putnam adapted this definition to describe social capital as the '*features of social organization, such as trust, norms, and networks that can improve the efficiency of society by facilitating coordinated actions,*' (p.167) (Putnam 1993). Finally, an important distinction in Bourdieu's notion of social capital is that it is another mechanism by which inequalities are maintained since, like

economic capital, it is a resource of which privileged groups or individuals have more. He defines it as '*the sum of resources, actual or virtual, that accrue to an individual or group by virtue of possessing a durable network of more or less institutionalised relationships of mutual acquaintance and recognition,*' (p.119) (Bourdieu 1986).

Drawing on each of these definitions and following Esser, I interpret social capital as '*the resources that an actor can mobilise or profit from because of his embeddedness in a network of relations with other actors*' (Esser 2008). Woolcock suggests that there are different types of social capital: bonding social capital which denotes ties between like people in similar situations such as family or close friends, bridging social capital which encompasses distant ties such as loose friendships and linking social capital which reaches people in dissimilar situations such as outside the community (Woolcock 1998).

Applying Woolcock's layered typology, I will show in Section 6.2 how risk perception is embedded within social relations of reciprocity, interpersonal trust and mutual aid (Coleman 1988; Putnam 1993; Kawachi and Berkman 2001) and affected by perceived consequences of relations with others. This was evident in individual interpretations of health, social and economic risks. Social capital was often drawn on to mitigate the impact of economic risks in the achievement of an idealised *maendeleo* (development). More broadly, in Section 6.3, I will explore through case studies differing levels of social cohesion within each respective field site and their effects on risk perception and risk behaviour. Drawing on Douglas' suggestion that risk perception is influenced by social position (Douglas 1970; Douglas and Calvez 1990), I will explore the hypothesis that social stratification is linked to risk perception. In so doing, I will examine the use of Douglas' grid/group theory to perceptions of risk in both field sites. Following Bellaby (1990) and Wight (1999), I will argue that, rather than static categories, differences are dynamic and contingent on social change. In Section 6.4 I will examine risk aversion

strategies and demonstrate the reliance on social networks as mechanisms to avoid exposure to salient risks. Whilst the concept of social capital is generally promoted as beneficial to the community, some have suggested that in addition to positive social capital, there is the potentially negative 'anti-social capital' (Baum 1999) which may be characterised by '*distrust, fear ... and the exclusion of outsiders*' (Campbell, Williams *et al*. 2002) . This has been shown particularly in studies to explore the role of social capital in promoting health behaviours (Campbell, Williams *et al*. 2002; Pronyck, Harpham *et al*. 2008). I will present evidence in Section 6.5 to demonstrate aspects of this 'anti-social capital' apparent in the field sites and the negative impact this may have on risk behaviour.

6.2 Risk perceptions embedded in social relations

6.2.1 Mariam's risk priorities: a case study of ambiguity in social relations

Mariam was first introduced in Chapter 5 where her example provided evidence to demonstrate the methodological disparity between embedded and abstract risk perception. Mariam's husband was the village chairman at the time of the research. This placed her in a complex social role which brought both benefits and problems. In this case study, her social position perhaps heightened her perception of the fragility of social relations and led her to highlight the risks inherent in social relations themselves. However, Mariam was not an isolated example, and her perceptions of the risks within social relations illustrate the perceptions of many other men and women within the two field communities. Here, Mariam's perceptions of risk will be presented in more detail to highlight the dominance and ambiguity of social relations in local risk discourse.

During both formal and informal discussions Mariam's relations with her neighbours proved to be contradictory. At times she felt that living in close proximity brought its

advantages, particularly in providing support during difficult times. At other times she blamed her neighbours retrospectively as the cause of particular misfortunes and considered too close a relationship with them as risky. This ambiguous relationship of reciprocity combined with distrust dominated her relations with wider social networks. It meant that she developed strategies to avoid neighbours entering or seeing inside her houses by using curtains hanging in the doorway. This was a common practice in Barakijiji, ostensibly to maintain privacy but also as a strategy to control negative aspects of social relations such as jealousy, or to minimise expectations of assistance such as the sharing of food. Mariam also spent as little time as possible in idle conversation with neighbours.

Some of the main risks Mariam highlighted were identified in her relations with others, such as the danger of social gossip since secrets were difficult to keep in Barakijiji, and the difficulties inherent in trusting others. Indeed, the research identified a particular term, *ndugu,* which conventionally translates as either kin, sibling, relative or close friend. This was used emically to describe others whom an individual could trust, distinguishing them from friends or relatives whom one could not trust. Despite this, Mariam was acutely aware of the need to maintain relations with these same 'dangerous' others since she was aware that social isolation was even more dangerous. Thus, she regularly advised me not to avoid sharing things with others if asked, since failure to do so could risk attack by witchcraft. Moreover, given the frequency of misfortunes which affect any family, she prioritised the need for reciprocity in cooperative social relations. She constantly asserted the importance of attending and helping out at the funerals of neighbours and the need to contribute to community development activities either financially or through providing labour. As was the case with many other informants, she referred regularly to the risks of social isolation amongst those living in poverty. Given this emphasis on the exploitation of available social capital as a resource, there is little wonder that individuals expressed

heightened awareness of the risks inherent in negative social relations. People thus tended to live their lives in a state of quasi-risk, daily balancing the need for cooperation with the risk of competition and its negative consequences. Thus, local risk discourse, frequently embedded within social relations, often situated the same individuals as both allies in risk aversion and concurrently as channels for increased risk exposure. The following incident, which was recounted by Mariam informally and in an IDI, provided substantive evidence of this interstitial role of social relations in risk perceptions. It demonstrates how her relations with her neighbours moved frequently between social support and accusations of blame for misfortune.

In 2003 Mariam experienced a serious pregnancy complication which resulted in miscarriage. During a recorded IDI she recounted the experience, noting explicitly the support she received from her neighbours throughout the incident.

> *'I went to bathe ... suddenly I just felt stomach pains, mm, I felt like being sick. I felt bad, I just stayed. Later on I felt like ... someone has poured some hot water on me. I said 'what have I done?' ... I washed my clothes and finished and returned again. I changed my clothes and came back to stay. It just continued like that until finally it reached a very bad stage. ... In fact when I felt that I was becoming weak I sent Wilamena* [her eldest daughter] *to go fetch her father and tell him that her mother is seriously sick. So he came and just found me in a serious state and my neighbours were there pouring water on me. ... He went to look for a car ... they said that they should take me to where? To Wilayaji* [the district referral hospital located about 15 miles north of Barakijiji]. *So it was I went to Wilayaji, it was there they found that I had a serious water and blood deficiency. He* [her husband] *had his blood checked but it didn't relate, even all the neighbours who had gone*

there to save my life, their blood didn't relate so to save my life they gave me a water transfusion first …'.

[Mariam, Barakijiji]

In this account, Mariam referred explicitly to her neighbours as playing an integral role in saving her life, both in being with her and supporting her whilst still at home and in extreme pain, and in travelling some distance to the hospital in an attempt to provide blood for a transfusion. Regardless of the relative success or failure of each contribution to the event, she was aware that these individuals attempted to decrease her risk exposure and her memory of the event included reference to their contribution.

Conversely, during many informal discussions, these were the same neighbours whom Mariam ultimately and retrospectively blamed as the underlying cause of the misfortune. She attributed the misfortune to two causes, in line with Evans-Pritchard's assertion of dual causation for misfortune (Evans-Pritchard 1937; Moore and Sanders 2001). The first layer acknowledged the reality of physical causation, namely her husband's infidelity and her suspicion that the miscarriage was caused by her having been infected with a sexually transmitted disease. But, in further discussions, having established a closer relationship with me, she referred again to the event, specifically noting the role of these same neighbours who had played positive roles during the incident. The second, underlying cause for both her husband's infidelity during a temporary breakdown in their relationship, and the miscarriage, was the jealousy her neighbours felt towards her and her family given the economic success of her brother; *'here in the village, people don't want others to develop'*, and the political success of her husband. This jealousy led to witchcraft, as an outcome of the uncontrollable nature of the same social relations (Ashforth 2002; Green and Mesaki 2005) which, during the event itself, proved beneficial.

Such ambiguity in social relations as both risk avoidance and risk exposure was also evident in the incident recounted in Chapter 5; that of the *minyaa* used to curse Mariam. Having sought treatment with a traditional healer, she was told that the perpetrator was '*someone who lived close to her and who was being helped by others*'. Mariam believed that one of these '*others'* was her distant relative and close neighbour of mine, Lucia. Prior to this incident they would lend each other cooking utensils such as saucepans or wire racks to dry fish. Mariam also regularly advised me to share my food with Lucia. Initially she claimed this was because Lucia had very little, but following this specific event which occurred about halfway through the fieldwork, Mariam's real purpose was revealed as a consistent endeavour to control the uncontrollable (Ashforth 2002) and reduce both our exposure to witchcraft. She attributed Lucia's involvement in her misfortune to jealousy of her relationship with a 'white person', but felt this should not prevent her from working with me since there would always be something else to be jealous of, given the uncontrollable nature of social relations.

Despite, or perhaps because of, her suspicions, Mariam continued to spend idle periods with Lucia and on the surface their relationship remained amicable. Such evidence of duality in social relations was common during fieldwork. Of the 23 female informants eight highlighted both the risks inherent in social exclusion, refusal to provide social support through sharing of food or living alone as well as emphasising the dangers of trusting others too easily. This reflected the normalisation of risks considered inherent in social relations and the associated ordinariness of witchcraft as commonplace risk (Ashforth 1996). Of all 40 informants, thirty highlighted the risks of exposing oneself to either jealousy or witchcraft or both. In many cases, heightened awareness of such risks did not necessarily translate to risk aversion strategies, although there were extreme cases of people moving from the village due to experiences of misfortune, attributions of blame and fear of recurrence, particularly when a family suffered more than one death in close

succession. Attributing unusual events with negative consequences to witchcraft is common in Tanzania and has been described by others, elsewhere (Green and Mesaki 2005).

This case study has shown social relations to involve a careful balance between social tension and social co-operation, the former considered a necessary disadvantage as counterpoint to the benefits associated with the latter. In the following section, I will explore the complex interplay between social relations and risk perceptions by drawing on several examples of economic risk.

6.2.2 The significance of social relations to economic risk

Ambivalence about social relations was influential in emic approaches to economic risks. As Green (2000) and Green and Mesaki (2005) have shown for southern Tanzania, popular representations of modern lifestyles in the field sites incorporated ideals of development or *maendeleo*, especially amongst the youth(Green 2000; Green and Mesaki 2005). For example, a youth in Shambajiji idealised development as access to commodities he felt westerners possessed:

> '*It's not a risk but we want development (maendeleo), I think when I see my fellow in Europe using a TV, using agricultural tools I have to follow it too,* [he laughed]' [FGD 21/02/06 AYTHMAMA]

Whilst individuals depended on collective resources of social capital to minimise economic risk exposure, they also sought individualised *maendeleo* to achieve personal success and the creation of individual wealth. For example, during an informal discussion, Mariam equated modern life (*maisha ya kisasa*) with *maendeleo* and claimed that there were no

differences between them since one necessarily led to the other. Local strategies such as microfinance organisations and cooperative labour farming groups were exploited to enable individuals to work cooperatively to achieve more 'developed' lifestyles for themselves as individuals. For example, Patience, a 68 year old widow living with her grandchildren described her attempt to profit from a savings and loan group:

Patience:I took 120,000/-.[from the group]. I put people to cultivate for me, they cultivated and I did weeding; I got only these sacks [laughter]

RA: Two?

ND: How much profit did you get?

Patience:I sold one at the price of 800/- per container. Ee, I sold about 30 containers.

ND: Was there any profit?

Patience:There was no profit it was a loss.

ND: So you need to repay it to the group?

Patience:I want to repay it in the group, I still owe them till now.

[Patience, Barakijiji]

Social networks were also relied upon either to mitigate the impact of unforeseen misfortunes or to create individual opportunities to control possible future risk exposure through economic *maendeleo*. In both cases social relations were considered beneficial both to the reduction of economic risk and additionally to the enhancement of social status.

Whilst social relations were drawn on to pursue the objective of development and success, given their dual nature, it is unsurprising that social relations also acted to inhibit personal development and that developmental success and the accrual of personal wealth were also deemed dangerous and risky (Moore and Sanders 2001). This was explicitly expressed by

nine informants, the majority of whom referred to economic development and their fears of the jealousy of others. For example, Mariam stated that '*huko kijijini hakitaki kwamba watu waendelee*', ('*here in the village, they don't want people to progress*'). Thus, social capital was demonstrated in the mutual aid associated with community-based development schemes such as the digging of wells, but anti-social capital (Baum 1999) was also evident in the demonstration of distrust and conflict between individuals in their attempts to benefit economically. The relationship between social capital and trust is more complex than that between social capital and community development. Trust is not always an inherent component of social capital. In fact, Bourdieu highlights the socially exclusionary nature of social capital as a resource to pursue individual interests (Bourdieu 1986). It is possible to draw on social relationships, exploiting the benefits of social inclusion, without wholly trusting those on whom one depends (Welch, Rivera *et al*. 2005). This lack of trust was manifested primarily in the field sites through the discourse of witchcraft. This connection between success, development, distrust, jealousy and witchcraft is demonstrated below:

> *'And this witch, these witches, once they see that so-and-so has development, they start using medicine to…if possible they will kill the whole family. Now the community will segregate them* [the witches] *because they are retarding progress, when people start progressing they destroy it. When someone gets his needs so that he may be an example to the others, again they will destroy that. They don't want their colleagues to progress. Now the community isolates them. Ee, it segregates them because of their inhumane deeds.'*
>
> [FGD 31/01/06 EMAMA]

This man clearly linked economic success to exposure to witchcraft. In so doing the participant cited 'development' as a general aim without stating more explicitly what this related to. It was a sought after, but not clearly understood, goal, represented largely

materially and indexed by wealth. He also inferred the importance of social inclusion through his description of enforced social isolation as collective punishment. As has been argued elsewhere, witchcraft as a discourse on development, was normalised (Green 2005) as a modern manifestation of uncertainty (Comaroff and Comaroff 1999; Moore and Sanders 2001). It was adopted to explain the successes or failures of the self or others and the resultant inequalities, and was fuelled by jealousy, social disparity and competition (Green 2005; Green and Mesaki 2005). Whilst jealousy or success was considered to provoke attack by witchcraft, success was also linked to the use of witchcraft, similarly to findings elsewhere in Sub-Saharan Africa (Moore and Sanders 2001; Ashforth 2002). During participant observation several informants told me of the begetting of wealth through witchcraft and it was claimed that at least half of those with wealth had achieved it through this method, using *ndagu* (evil medicine) to gain wealth and power. The case of one particular woman, cited below, was commonly described. Although many claimed to have known her and her story was recited twice, without prompting, by different individuals during the fieldwork, the truth is not of interest here. Rather, her story had become mythical as symbolising the dangers of chasing wealth.

> *He told us the example of someone in a neighbouring village, a woman, who was poor and who had been told that if she wanted her children to have wealth then one day while she was farming she would be visited by a child. She was told that she should accept this child and take care of it. About 6 months later a large python came to the field where she had been farming. She asked herself if this could be the child she had been told about. She decided that it must be and took the python on to her back to carry it home. At home she fed it and took care of it and great wealth came to the family over the years. But eventually she died and the children, not being aware of the role of the python, began to neglect it and forgot to give it food. So the python was eventually hungry and ate one of the woman's*

grandchildren.

[Fieldnotes: 01/12/05]

As Green and Mesaki found in southern Tanzania, this discourse is one of success, failure and inequality, manifested through consumption and tragedy (Green and Mesaki 2005). It was used as an explanation for the inexplicable - i.e. the sudden accumulation of wealth - and invoked to account for the failures of others to achieve. As a representation of risk, it again highlights the ambiguous nature of social relations and the tension between personal success and development, idealised collectively but experienced individually, and exposure to the jealousy of others through the same success, played out within a witchcraft discourse.

Local narrative on the causes of social risk through economic or developmental success was often given a historical perspective. Individuals and groups highlighted the role of resettlement under *Ujamaa.* This policy brought together previously widely dispersed households so that the government could provide services for these newly established communities. This was thought to have increased witchcraft acts and accusations. A group of older men in Shambajiji recollected:

' but when we were brought closer, all our secrets came out in the open, everybody knew every one's secret, particularly when we were moved to the collective villages, everybody knew that so-and-so had this and this property. So, so-and-so is that rich, that is when we started hating one another, but in the past nobody knew one's secrets.'

[FGD 31/01/06 EMAMA]

I suggest that in addition to such forced relocation into closer living arrangements with unknown others (Abrahams 1994), changes in social relations have also been affected by changes in the national economy throughout the 1980s onwards. This has meant that the ideals of socialism under Nyerere gave way to those of a global market-based economy (Setel 1996; Howard and Millard 1997). Development policies previously entrenched in the ideals of cooperation and social solidarity gave way to an emphasis on personal development and individual accumulation of wealth. This latter worldview has prevailed, reinforced by its association with *maendeleo*, greater access to education and the possibility of formal employment through urban migration. In turn, this has led to an idealisation of out-migration, even amongst parents, viewing their children as a conduit to development and enhanced social status. Whether or not such market orientations and living arrangements form the underlying cause of increases in frequency of accusations of witchcraft (Mesaki 1994), the status of witchcraft as normative explanation for both economic and social misfortune is clearly demonstrated by the data and reflects findings elsewhere in Tanzania (Sanders 1999; Green 2005).

I have discussed here the ambiguous but integral role of social relations in risk perceptions. Given this, it is natural to assume that social position, both as an individual and as a member of a group within society, is likely to affect perceptions of risk. The following section uses the data to explore this hypothesis, relating the findings to a wider theoretical discourse on the social construction of risk through social position.

6.3 The influence of social position on risk perception

The following series of case studies are drawn from a combination of in-depth interview data and participant observation fieldnotes. I came to know each of these women quite well during my fieldwork and the data is drawn over six months rather than from a one off

encounter. These particular women have been selected as examples since although each individual represents a distinct social 'niche' in the community, they concurrently display certain commonalities. In examining them together in detail I pose the following questions. Does a particular social role and position in society generate a distinctive way of viewing the world, as cultural theory would suggest? (Douglas 1970; Durkheim 1982; Douglas 1992; Lupton 1999a; Lupton 1999b) And does this distinctive view of the world translate to particular risk perceptions (Wight 1999; Lupton 1999b). Is this related to levels of social cohesion expressed through the extent of connectedness and solidarity among groups in each village? Or is it rather a result of individualised social networks and access to systems of support? (Portes 1998; Kawachi and Berkman 2001). Finally, how do changes in social position affect risk perception?

Pendo was first introduced in Chapter 5 where her example helped in identifying methodological differences in risk perception research and also in highlighting the dominance of social risks in individual risk narratives. At the time of the fieldwork, Pendo lived in rural Shambajiji, where her household's main livelihood strategy was a combination of cash and subsistence crops and cattle rearing. Agriculture was subject to fluctuating environmental conditions but the household was maintained during difficult periods by the ability to stockpile and by the constant insurance of cattle and other livestock if unexpected misfortunes occurred. Her involvement in local government and village organisations, assistance to neighbours during funerals, regular church attendance at the Shambajiji AIC, and occasional hosting of large community events, ensured a high level of social participation and meant that she felt less exposed than some of her neighbours to seasonal or unexpected risks, such as drought or family illness. Despite this, her lifestyle meant that she shared the same value system and ways of interpreting the world as her neighbours in her immediate local environment. This shared system of meanings contributed to her social acceptability within the community. The only child of

parents who separated when she was still young, she was raised by her paternal grandmother and uncle in the local area, and married traditionally to her current husband, who paid 11 head of cattle in bridewealth. Although a regular church attendee, she had not formalised her marriage in church, and had had six children with her traditional husband. All these factors combined to secure a respectable social position and dominant social role in the village.

Lemmy, aged 38, was also a Sukuma and resident in Shambajiji, but her social position was far less prominent than that of Pendo. In fact, her aversion to attending public events and dependence on her husband as representative of the household wider afield translated to a refusal to contribute to public life. Lemmy was born and married in the village for the exchange of five cattle in a traditional marriage. She lived with her husband and eight of her nine children in one small, two-roomed, mud brick and thatch house. According to Lemmy, a second building had been eroded by weather and insects, and stood derelict next door. The house had no toilet although this was of little consequence to Lemmy: the family used the local bush. One son lived with Pendo and her family as a herdsman, having left school after attending only two years. This brought the family a small monthly income and relieved some of the burden of sleeping arrangements. Unlike Pendo, Lemmy was able to complete primary school, although she had had less exposure to alternative lifestyles and world views. This was especially the case since she used to attend the African Inland church but stopped during the early years of her marriage, and in her own words, rarely left the home environment. She stated that her husband paid bridewealth for her domestic labour, and insisted that it was her role to collect water for the whole family, despite some distance to the nearest water tap. This attitude was informed by restrictive gender relations in parental role models as a child. Thus Lemmy was socialised into adopting an isolated life, and relied on her husband to define her own social position externally.

Moving from Shambajiji to Barakijiji, Seraphina was 33 and worked as a tailor renting a small shop in the local market. Whilst she was Sukuma by birth, she was a relative stranger to Barakijiji, having moved there from Wilayaji to join her third, informal husband. She had three children, all of whom had been born without bridewealth payments, and who were being raised by her mother in Igoma, an outlying area of Mwanza City. The birth of her first child meant she had had to drop out of secondary school, and she was never able to return to complete the Form four education that her mother had struggled to provide for her. She travelled regularly to Mwanza to buy material and was able to visit her children frequently, but felt she couldn't raise them in Barakijiji for two reasons. First, she had no space in her rented one room, cement block house and second, because they were not the children of her current partner, a day labourer and long-term resident of Barakijiji. Like Lemmy, Seraphina had no toilet at home, but used that of her neighbours. Unlike Lemmy, she considered the lack of toilet to be dangerous since it meant walking out in the dark at night. Of the four women presented here, Seraphina was the least dependent on agriculture. As settlers to Barakijiji they owned no land, but drawing on social relations, Seraphina was able to borrow land on which to grow subsistence crops. The couple rarely hired land for cash crops since she felt this was unprofitable. Seraphina tended to play a greater role than Lemmy in decision-making at home. She claimed this was because she was the main income-earner in her household. She was also a firm believer in the value of social inclusion and the dangers of social isolation, taking part in both church and savings and loans groups. This aversion to social isolation could be traced to her upbringing and the separation and consequent social isolation of her mother, who struggled alone to raise her children and earn a living.

Seraphina's upbringing contrasted with that of Tabitha, who was aged 52 at the time of the research. She was also an immigrant to Barakijiji, having been posted there in the 70s as

Village Manager[25]. Although a Jita from Ukerewe, Tabitha was easily accepted in the village and chose to remain there once her official position ended. She had been raised in a strict and well off Seventh Day Adventist (SDA) household and continued to frequent church regularly. She had been educated to Form four level and drew on this education in her household management strategies, although she felt she was no richer or better than her neighbours. She was a well respected member of the community and performed several social roles such as that of women's counsellor, a member of the church, church choir and savings and loans groups. She described relations with her second husband as harmonious and egalitarian: both were responsible for household earnings and management decisions. Her first husband and children having died, she lived with extended family dependents in a cement block house, which had been slowly constructed by herself and her second husband. Despite her obviously greater economic well being, she was regularly cited as someone who was greatly respected and well-liked in the community and she perceived herself to be equal to her neighbours.

Given Pendo's socioeconomic position in the community and household dependence on what she considered to be a risky livelihood, agriculture and livestock husbandry, her approach to related risk perceptions emphasised the normalisation of risk aversion strategies. These included stockpiling and appropriate crop selection in the planting of drought resistant crops, such as cassava. She stated that she was aware of the risks inherent in planting crops and that '*these years of drought are always a game of chance with the weather*' and household livelihood depended on the ability to minimise risk. At this, her household management decisions had been successful, relieving her of the burden of possible crop failure. A similar approach was in evidence with Tabitha who emphasised the risk of crop failure similarly to Pendo and whose crop management strategies were such that she was able to diversify food consumption throughout the year. In contrast, Lemmy, although also reliant on subsistence farming, was less risk averse in her

[25] Village Managers became Village Executive Officers after the Nyerere years.

behaviour. For her, risk exposure tended to be normalised, whilst strategies to minimise risk such as stockpiling were less feasible due to her lower socioeconomic status. Exploring further the contrast between world views and risk perceptions influenced specifically by socioeconomic position, it is interesting to examine the case of Seraphina in Barakijiji. As a tailor she was far less dependent on subsistence farming, although, acculturated to the socio-economic environment, she borrowed fields to grow subsistence crops. This relative economic independence from agriculture meant that, although aware, she remained unconcerned about the risk of drought, because she was less affected and able to depend on income from business if the harvest failed. This impacted on her discourse about risk. She was the only one of the four individuals who didn't mention hunger or drought as a salient risk.

In summary, Pendo, Tabitha and Lemmy were all principally dependent on agriculture for their daily subsistence. However, Pendo and Tabitha occupied a higher socio-economic status than Lemmy, demonstrated by diversified crop management and food consumption and their ability to stockpile an annual surplus. Lemmy, in contrast, lived a hand to mouth existence with a small subsistence yield and reliance on her son's meagre monthly income and irregular casual labour to purchase food. Whilst Pendo and Tabitha emphasised drought and hunger as salient risks, Lemmy, although more exposed to these risks because of her inability to stockpile food, instead stressed non-economic risks such as jealousy and witchcraft. The findings presented here suggest that risk perception is heightened amongst those with more to lose, even within an environment of generalised poverty and vulnerability. Since many individuals in the field sites experienced a state of relative vulnerability, differences reflected perceived ability to control risk exposure in uncontrollable environments (Kemp 1993) and exposure to alternative worldviews (Giddens 1990; Giddens 1991). Risk perception was thus heightened amongst those with a greater ability to control certain risks, who consequently felt more vulnerable when unable

to exert this control in the face of certain risks. This argument will be explored more fully in Chapter 7.

I have shown here that economic position affected types of risk considered salient to the individual. Does social cohesion, social reputation and level of community engagement perform a similar role in producing different worldviews which shape risk perception? Whilst there have been studies on the role of social capital in health behaviour (Kawachi and Berkman 2001; Campbell, Williams *et al*. 2002; Ellaway and Macintyre 2007; Pronyck, Harpham *et al*. 2008), and the role of social position in perceptions of risk has been tested empirically through quantitative and qualitative studies (for example (Shin, Chey *et al*. 1989; Bellaby 1990; Douglas and Calvez 1990; Dake and Wildavsky 1991; Boholm 1996; Wight 1999; Burton-Jeangros 2000; Bellaby and Lawrenson 2001), there has been very little research into the effect of social capital on risk perception. Studies have concluded that health behaviour is affected both positively through social capital and negatively through anti-social capital (Baum 1999). However, organisational group membership had both positive and negative effects on sexual health (Campbell, Williams *et al*. 2002) and strong community relations, characterised by a sense of mutual support and reciprocity were linked to lower levels of HIV risk amongst men in South Africa (Pronyck, Harpham *et al*. 2008). Additionally, there is some evidence that an individual's social position, defined through dynamic and concurrent membership of particular social groups representative of differing worldviews, affects their perceptions of risk [for example (Bellaby 1990; Wight 1999)]. Here I attempt to combine these concepts and examine the role of social capital in risk perception through the exploration of level of community engagement.

Returning to the data, both Pendo and Tabitha had a high social reputation and were ascribed a prominent social role in community life. Tabitha attributed her social reputation

to her previous government role combined with her faith. Pendo and her husband attributed hers to household involvement in development schemes and to Pendo's engagement with social welfare schemes and current village government. Both women were well-respected and well-liked in their respective locales. In translating this to risk perception, it is interesting to note that both women highlighted the risk of trusting others too easily, whilst neither Seraphina nor Lemmy did. Furthermore, in examining the cases of all 40 informants, there was evidence that all those who referred to the risk of trusting others (n=8) also demonstrated higher than average levels of social engagement through their participation in community groups. Those who were also heavily socially engaged but who did not refer to the risk of trusting others instead highlighted other social risks such as those of social exclusion (n=5) and the loss of social reputation (n=4). The only informant who was not involved in community groups but who expressed the risk of loss of social reputation was Paulina, a barmaid from Barakijiji. It is likely that her emphasis on social reputation was informed by the reputational nature of her occupation.

Pendo's discourse related this inability to trust to certain members of the community who could not be trusted, and who may attempt to harm her. Tabitha's, on the other hand, was related to her past experience and the fact that her first husband's business partners were those who had murdered him. The relationship between risk and trust has been explored with respect to a range of different contexts and risks. For example, Bujra (2000) explored the paradoxical relationship between risk and trust in the context of HIV in Kilimanjaro. She described how the demonstration of trust increased risk exposure within regular partner relations (Bujra 2000). It has also been described as integral to relations of reciprocity through obligations and expectations as a component of social capital (Coleman 1988). Such tensions between risk and trust were also evident in the interplay between social relations and risk in the field communities. But similarities in social risk perception between Pendo and Tabitha end here, since Pendo appeared more aware than Tabitha of

social risks, such as jealousy and success. In this she reflected the fears of both Lemmy and Seraphina. Jealousy of success was considered to be the cause of several misfortunes highlighted in the personal narratives of Lemmy and Pendo, whilst Seraphina considered jealousy and its consequence, witchcraft, to be a constant threat, and one which should be guarded against.

So does level of social engagement influence risk perception? There was a relationship between level of social participation and risk perception, and commonly social participation was considered a risk aversion strategy, both to avert the risks of jealousy and those of poverty. This is highlighted in the following quotation from a 35 year old man in Barakijiji;

> '*but it becomes so easy if people are in a particular group, you would get help so easily contrary to when you are not in that particular group as people will say that you are uncooperative and should be neglected during times of need, …'*
> [FGD 31/01/06 EMAMA]

Returning to the case studies, Lemmy, who rarely ventured into public, and was socially isolated, emphasised fears of witchcraft similarly to Pendo, who was heavily socially engaged. Both women had spent the majority of their lives in the same village. In contrast, Seraphina and Tabitha's status as accepted outsider was likely to make them less susceptible to social risks manifested through witchcraft, if this continued to be based on personal relations. However they would be equally susceptible to such social risks if these were based on jealousy of success. In fact, it is likely that Seraphina was aware of her own risk exposure and was wary of displaying success, since she earned regular cash income. Further, Tabitha continually showed her desire to be seen as a 'normal' member of the

community in terms of wealth and livelihood, perhaps as a strategy to avert the potential dangers of jealousy.

I suggest that these four case studies vividly highlight the dynamic nature of social life. Individual characteristics of residence, partner and livelihood strategy affected both social reputation and relative social position. These may be unvarying, as the lifestyles of Pendo and Lemmy showed. Both had remained with the same partner and in the same area of residence, following the same livelihood throughout their lives. They may also be dynamic, as was the case of Tabitha and Seraphina, both of whom had had more than one partner and had moved from a status as mother to that as childless. For Seraphina, this was due to divorce and the relocation of children whilst death and misfortune brought change in social role for Tabitha. Social position was thus demonstrated to be dynamic and reflected changing life circumstances. Many, if life failed to work out in one place, chose to relocate elsewhere and try something else. Whilst men also relocated to seek employment, escape from current life circumstances appeared to be more common amongst women than men. Of the 23 female case studies, six had relocated, often more than once, to pursue largely economic opportunities elsewhere. For example, Loveness, a 34 year old woman working at the time of the research with her sister in selling wood in the centre of Barakijiji, had moved frequently. Her initial move had been when her parents divorced when she was young and she moved from Ukerewe to Geita with her mother. After her first divorce, she relocated to Barakijiji where her sister was based, leaving her children with her mother, to evade her husband's family and pursue economic opportunities. Later and during the fieldwork, she disappeared for two months from Barakijiji. On her return she told me she had had enough of minimal wages from her sister and had moved to Mwanza where she had been working in business. She had returned again to Barakijiji temporarily whilst she explored alternative possibilities. At the end of the research period, she left again to return to Mwanza and from there to Geita. Such migratory behaviour

meant dynamic changes in lifestyle and social position. Her description of life in each locale suggested that she fulfilled a distinct social role in each, demonstrating the ease with which she was able to reconstruct her identity in each location (Comaroff and Comaroff 2001) and with this, her perceptions of risk. For example, in Geita her kin relatedness and role as mother and daughter led her to focus on social risks such as family distputes over land and consequent witchcraft and on the future of her children. In contrast, she became an independent urban woman in Mwanza, seeking economic opportunities and there emphasised economic risks. Finally, in Barakijiji, she was a visitor and guest of her half-sister, obliged to reciprocate her lodging with unpaid work. Here, she emphasised her social obligations.

In recounting her life history, Tabitha described the dynamic nature of social position implicitly. Having lived in Mwanza City, earning money from a successful business with her first husband and then experiencing the dual misfortunes of losing one child and her husband, she was acutely aware of the risks of trusting others and of success. In relation to the city, she described the benefits and dangers of the pursuit of individualised profit, less subject to the constraints of social engagement. Previously, Tabitha had been raised in Ukerewe where her strict, religious parents were socio-economically better off than their neighbours and she was educated to Form four. There, her parents taught her to rely on the church and their relative affluence alongside this belief gave them a high social status. Finally, Tabitha chose to change her lifestyle and livelihood strategy when she selected to become a farmer in Barakijiji, with her current partner. Her background and experience gave her a high social position but she was keen to show her humility and equality, and informed by previous experiences ensured minimal exposure to social jealousies. Her perception of her own risk exposure thus fluctuated throughout her life and she had chosen to remain in Barakijiji, she stated, because she felt happy and secure there. This, I suggest,

was related to her changed social position and the security of having built a reputation of social engagement but embedded within a position of social parity.

The empirical data from this research were drawn from emic priorities for risk perception and thus did not systematically test Douglas' group[26] /grid [27] hypothesis (Douglas 1970; Wight 1999). In this she described four different categories or 'cosmological types' as universals and 'binary pairs' (Boholm 1996). In principle, each of these four types is taken to be co-existent in every society. These are egalitarianism as strong group and weak grid, hierarchy as strong group and strong grid, fatalism as weak group and strong grid and individualism as weak group and weak grid. The problem with these static categories, despite Douglas' assertion that individuals are able to move between groups (p.65) (Douglas 1970) has been highlighted by the case studies presented. Since risk perception is contingent on context and determined by way of life, and since this way of life in turn corresponds to social context, in moving between social contexts individuals are likely to move between corresponding worldviews, so risk perception is necessarily dynamic (Boholm 1996). This raises both an interpretive and methodological issue. Since the research itself reflects one social context for each individual, the contingent nature of risk perceptions means that those highlighted in the research may, in fact, change over time for many individuals. Such is the implication of social position on risk perception. Despite this, the analysis has shown that risk perception may be influenced by social position and awareness of a particular risk and ability to implement strategies to control that risk may be enhanced by particular social characteristics. This is influenced in turn by level of social engagement and availability of wider social capital represented by levels of reciprocity and expectations, mutual aid and interpersonal trust. Individuals drew on social capital as a risk aversion strategy, viewed social isolation as risky, and social engagement as one approach to minimising risk. This discourse of social solidarity competed with that of

[26] The strength of the cultural group's boundary with the outside world
[27] The degree of social distinction within the cultural group

social competition, a tension which played out daily at both the individual and community levels and one which dynamically influenced risk perception through fluctuating social position. The following section will examine in more detail the relationship between social capital and risk aversion as well as tracing strategies for minimising risk exposure through other aspects of social relations such as social reputation and the achievement of higher status.

6.4 Risk aversion informed by social relations

Whilst risk perception was wide ranging, with a total of 88 risks raised by 40 informants during the research period, the prevalence of certain risks ensured that these were controlled by embedded practices and strategies. Many of these were situated within the domain of social relations. This is not to suggest that prevalent risks were perceived equally by all informants in the research sites. Neither do I claim that all those risks cited widely were necessarily subject to risk aversion strategies. In fact several risks, although recognised in the abstract, were normalised and expected, treated as everyday risks not subject to specific or emically definable prevention strategies. It is also important to highlight the fact that identification of strategies which worked to reduce risk was an exercise of the research, not of the research participants. In other words, some strategies were of such long-term duration, so wholly embedded within the structure of society, that individuals tended not to recognise the link between the strategy and the risk. Rather, this was an etic interpretation, evident only to the outsider, as researcher. Methodological literature in anthropology has had much to say on the role of otherness in fieldwork. The ability to turn the familiar into the unfamiliar, to identify connections between structures unrecognised by the actors themselves and to interpret and provide meaning to a social situation is recognised as a core value of being an outsider in research settings (Marcus 1984; Barnard 1995; Burgess 1997; Dewalt and Dewalt 2002). Here, the role of outsider

assisted in identifying the social benefits of many risk aversion strategies such as improvement in social status. This section will also examine in more detail the cultivation of social relations as a risk aversion strategy.

Economic risk aversion strategies were those most commonly linked to enhancement of social status. For example, cattle ownership performed a twofold function; first as insurance policy or risk aversion strategy and second as route to higher social status. Among the Sukuma, ownership of cattle has historically been a route to enhanced social status. The ability to exploit cattle as a valuable resource which promotes household economic and social security and contributes to broader community resources such as through selling milk, continues to be regarded as status enhancing. Both a young man from Shambajiji and a young woman from Barakijiji described this role:

> '*But the one who owns cattle will be respected more because he can solve his problems just at any time'.*
> [FGD 21/02/06 AYTHMAMA]

> *'This one cultivates and has got livestock, now for instance even this year we have no harvests but if you have got your cattle you can just sell them and get food, that's why this one is respected'*
> [FGD 04/02/06 AYTHFE]

The resource element of enhanced social reputation was important and was also reflected in land use strategies in both field sites. Given the dominance of dispersed households in Shambajiji, many households of varying degrees of wealth owned similarly large land holdings. Even in Barakijiji, amongst those who owned land further afield, acreage was estimated similarly between different economic strata. Ownership of land *per se* was

insufficient to promote enhanced social status. Rather, informants ascribed reputation to informed land use strategies and the ability to minimise risk exposure to hunger, due to unpredictable rainfall, through stockpiling and crop diversification. Thus, it was evident that social reputation was closely tied to risk aversion. This was described succinctly by a man in Shambajiji;

> '*Perhaps if he cultivates his fields and stores crops inside the house, he is respected, but if you have got a big farm but it's profitless you are not respected'* [FGD 31/01/06 EMAMA]

Given the association between risk aversion strategies for livelihood risks and social status, it is indisputable that the ability to avert risk increased social reputation. It is less evident whether individual strategies for the aversion of risks to livelihood were led primarily by a desire for higher social status, or by the less complex objective of coping strategy. However, since each drew on the other I suggest that such strategies, which combined social benefits with reduction of risk, promoted the adoption and sustainability of risk management.

The data suggested that strategies which enhanced social status and minimised risk were also evident in other aspects of people's lives. For example, bed net ownership was closely tied to income. In many cases, one family of two adults and several children may have owned only one net, generally used by the parents and co-sleeping children. Moreover, bednets are a material commodity and one used as a socio-economic indicator in surveys. There is evidence of a direct association between bednet ownership and socio-economic status (Somi, Butler *et al*. 2007). As such it heightens economic status and through this, social reputation. In fact, social behavioural norms suggested that, other than ownership of a bednet, individuals did little to manage their exposure to the risk of malaria.

These included keeping children up late at night for the family meal and regular funeral attendance at neighbours' houses, where large numbers of people were accommodated and slept outside or on the floor with no net. A study in Nigeria found evidence of participants' use of bednets for their 'beauty' (Brieger, Onyido *et al*. 1996). I tentatively suggest that bednet ownership in the field sites, whilst abstractly associated emically with decreased risk of malaria and not denying its efficacy in this role, was in practice informed by a social discourse, which equated it to ownership of a radio or bicycle. On taking a photo for one household during the research, I was asked to wait for the father of the house to retrieve his radio, to document his material possessions, akin to his high number of children. Such economic ideals meant that households sought to enhance social status through the accrual of material wealth

Social reputation was also enhanced by demonstration of collective solidarity through sharing this wealth and knowledge. It was not sufficient to simply possess either. Social reputation could only be enhanced if there was demonstrable, direct benefit to the household or, more frequently, the wider community. In fact, there was evidence to suggest that possession of wealth or achievement was risky to the individual, unless such risk aversion strategies as sharing were adopted. A young man in Barakijiji described this relationship between success and respect in the following way:

> '*So it also happens, ahm, it depends on their assistance to the community. ...and the way you give advice for example there is a youth who can even help fellow youth by giving them employment, then the youth respect him as a person who is interested in helping others so that maybe they also earn some income. ...don't think that if you have income, then you will be respected amongst people you will be respected amongst people for the good things you do to people, don't expect that people will respect you for your income ...'*

[FGD 28/01/06 AYTHMA]

This principle meant that the wealthy should share their good fortune through, for example, beneficial patron-client relationships. It also implied that education and knowledge brought about through travel were insufficient in themselves to produce respect. This knowledge had to be returned and shared for the benefit of the local community. This placed great pressure on those, particularly men, who gained economic or educational success elsewhere and meant that many refused to return to the village, thus losing them their initial enhanced social reputation. The failure to achieve expected fortune often had the same effect. Teresa, a 44 year old married woman, residing in Barakijiji, mourned the loss of her son because of his refusal to return. He feared coming back unsuccessful and said he would remain away until he had something to return with.

ND: Do you know why he hasn't come back?

Teresa: He says that he hasn't got a good life to come back to Barakijiji.

ND: So he has no fare?

Teresa: Ee, till he gets fare money to come, he says that 'I have no money even to buy you even a pair of quality printed cloth'.

ND: Aha.

Teresa: ''Now if I come, okay, you mother too struggled to bring me up.'' I answered him that ''I never sent you to look for money, you just come so that I can just see your condition.''

ND: Mm.

Teresa: ''To see how you are now, your face, and you can see my face too.''

ND: Mm, mm, but he thinks that he wants to come back when he is a bit older?

Teresa: Ee.

ND: When he is successful, he has got …

Teresa:Ee, that's what he wants his life to be, but I didn't want that, I just request him to just come.

[Teresa, Barakijiji]

This social pressure to succeed inadvertently increased risk exposure for those individuals who had out-migrated to achieve success, often measured, as in the example above, materially. It regularly forced men and women into 'risky livelihood practices' in 'risky locations' such as fishing or commercial sex. This pressure was not considered by parents and neighbours who often encouraged youth to migrate to improve their own livelihoods, access to cash income and social reputations. A male youth in Shambajiji described this enhanced reputation. In so doing he also suggested the replacement of old values based on ascription and age with those drawn from achievement:

> *'You see, for instance these are my young brothers/sisters in one family, if our young brother/sister here gets money and goes to America and brings support to father, [he laughed], he will be respected so much'.*
>
> [FGD 21/02/06 AYTHMAMA]

The perceived benefits in terms of social reputation were also evident in the cases of two individuals: Eliza, who has been mentioned in Chapter 5 and Edward, both of whom had been educated to O'level standard and were thus subject to greater expectations than primary school leavers. Eliza, whose polygamous father was a subsistence farmer, had been encouraged to travel to Dar es Salaam, on completion of her studies, to seek further education with the support of relatives. After funding some short courses while she helped out in the home, her uncle told her he could no longer afford to support her and she decided to return to her parents, in the hope of another opportunity. Edward was slightly more successful in his visit to Dar es Salaam to stay with relatives. His uncle had

promised him a journalism course, but once again, due to shortage of funds, he was only able to sign up for short-term courses, though he completed several and his training meant that he was able to secure work in Mwanza City on his return, when the funds ran out. In these examples the ideal of success was not achieved and in contrast to Teresa's son, they returned to the local community. In Edward's case this return was not unsuccessful as he demonstrated both achievement in obtaining employment in Mwanza City and collective solidarity through innovation and commitment to community development schemes. Eliza, on the other hand, returned to her old life, awaiting the next opportunity. Her youth and sex may have prevented exposure to the pressures on young men to return only after success.

A similar ethos to that described as linking social engagement to social reputation and risk aversion was evident within the two research sites and, enacted locally, the benefits were more apparent. Many informants described the need for social inclusion through participation, either in collective community development schemes such as digging of wells or school building improvements, or in social events such as funerals or collective farming activities (*luganda*). Both of these activities were described as socially beneficial since, in the former, contributions towards the mitigation of misfortunes for others ensured reciprocity during times of need and, in the latter, assistance in the timely preparation of their own land for the rains. Other social activities such as participation in microfinance groups ensured a dependable source of financial assistance. All these strategies were targeted at the mitigation of unpredictable problems such as illness, death and erratic rainfall.

I suggested above that such development of social capital had been shown elsewhere to have social and health benefits (Kawachi and Berkman 2001; Campbell, Williams *et al*. 2002; Pronyck, Harpham *et al*. 2008). In this context, the evidence demonstrated a similar

effect, suggesting that the perceived interplay between social capital and risk reduction was fundamental to life in both the research sites, even though social relations were also considered risky, rendering their status ambiguous. Despite this, and in the context of social reciprocity amongst the Sukuma (Wijsen and Tanner 2000), ability to access social capital was widely considered as a risk aversion strategy. The following quotations, taken from a man in Barakijiji and an IDI with a 42 year old farmer and petty business woman respectively, highlight both the development of bridging social capital (Woolcock 1998)as risk aversion and the necessity of fulfilling such socially responsible roles.

> *'but it becomes so easy if people are in a particular group, you would get help so easily contrary to when you are not in that particular group, as people will say that you are uncooperative and should be neglected during times of need.'*
> [FGD 31/01/06 EMAMA]

> *'Ee, they always cultivate for me when necessary, ee, I have to be very close to them. When they have a problem* [with farming] *I also help them when I have time.'*
> [Naomi, Barakijiji]

The latter example is interesting since it additionally highlights the social obligation of individuals as much as the benefits of social engagement. Thus, whilst individuals recognised the advantages, they were also aware of the reciprocal nature of such assistance.

I have demonstrated that an individual would be more likely to implement specific risk aversion strategies if there were also direct social benefits to be gained. Given this, it is not surprising that social risks predominated over economic and health risks in risk

discourse. It is also unlikely that individuals would react to avert a particular risk if they deemed there to be the potential for adverse social consequences. These points will be explored in the following section.

6.5 The 'impact of anti-social capital' and the salience of social risks

Pendo, who has already been introduced, and her husband, Jackson, lived in Shambajiji with his mother, their last-born son and grandchildren. They were subsistence and cash crop farmers and owned some livestock. In many ways their lifestyle reflected that of their neighbours, and combined, they were heavily socially integrated and well-liked in the village, readily contributing to community development schemes and taking key social positions in the village government and church groups. As demonstrated below, they were also social innovators in their local society. This occasionally placed them in a contradictory position and exposed them to some social criticism in their neighbourhood. However, their close and trusting relationship allowed them to reject certain conventions which they felt constrained household development. Here, I wish to recount one incident which illustrates their role as social innovators and demonstrates both this refusal to conform to restricted social roles and highlights the social norms embedded in local society which prioritise social risk over health risk, in this case concerning sexual reputation and HIV.

Pendo was one of the few women in the village who owned a bicycle. She could be seen cycling regularly and independently between Shambajiji and Barakijiji, to attend meetings or visit the market. Walking across the fields in the village one day with Jackson, he described to me how she had acquired the bicycle, and how this had placed him in a socially ambivalent position. Pendo was heavily socially engaged in village government and committees for microfinance groups and the care of orphans. As such she was

responsible for group finances and attended regular meetings outside the local area. Jackson had been faced with three options: providing a bicycle (high social risk, low health risk), allowing her to use bicycle taxis (high social risk through wife's sexual reputation, high health risk through sexual exchange for lifts) or forbidding her to travel (low social risk and low health risk). Counter to convention which would favour the third, he selected the first . Since many men in the village preferred more control over their wives, this action was viewed with some surprise and he was accused of weakness and charged with providing his wife freedom for infidelity. He remained unconcerned, since he trusted his wife, benefited from her social engagement and felt it safer for her to have her own transport than to rely on lifts from other men. This concern was verified when my regular bicycle taxi driver described the reputation of women who needed to travel locally but had no spare cash to do so, and asked for lifts on bicycles in exchange for sex. In these circumstances, convention blamed women for both their own and their partner's risk, as the following quote demonstrates

> *'I can walk from here to Mwanza without seducing a woman and I can't say that let me go to a traditional healer and bathe in medicines and what* [implies that women take this action to improve desirability] *but if a woman walks even from here to Barakijiji without getting a lift she will ask herself, "what's wrong with me? I have walked from Shambajiji and nobody has seduced me, I have even asked for a lift but I wasn't given it, why?'*
>
> [FGD 21/02/06 AYTHMAMA]

Such concerns also reflect other, more widely recognised links between social and health risks in the negotiation of condoms within regular partnerships. The desire to display fidelity and demonstrate trust, and to avoid a loss of social and sexual reputation by demanding condom use, exposes individuals to greater risk of HIV (Bujra 2000; Desmond,

Allen *et al*. 2005; Lees, Desmond *et al*. submitted). Since women were generally discouraged socially from owning bicycles; where husbands who allowed this were viewed as weak, and wives who possessed them were thought to pursue greater sexual freedom, through freedom of movement and the establishment of wider social networks with uncontrollable others, women were dependent on men for both local travel as well as that further afield. Thus gendered differentiation of risks was evident in the dominance of male controlled strategies to minimise social risk over women's exposure to health risks, of which both men and women were aware.

A second example used to highlight this salience of social risk draws on relocation strategies between what were considered to be risky and less risky social environments. During the research I often travelled to a local fishing village, situated directly on the shore of Lake Victoria and visited regularly by Barakijiji residents. This environment differed from either of the two main field sites in its 'risk profile' (Allison and Seeley 2004). It was defined by high income earners (fishermen) and those seeking to access such wealth through activities like petty business, shop ownership, bars and commercial sex work. Dependence on the fishing industry created a fragile and opportunistic environment which affected young and old alike. Parents resident in the area were aware of their children's exposure to the attractions of petty income and social corruption, and considered this a sufficiently salient risk to require active management. For example, one couple described to me, during an informal discussion, their decision to send their children to their grandparents in Nassa, an inland agricultural village. This strategy had been adopted to avoid exposure to the attractions of easy cash income which they felt would encourage truanting from school. They themselves had elected to migrate from Nassa in 1999 to open a small shop. They had four children and had sent the two eldest since they claimed that the environment was safe for pre-school children. Thus for themselves as adults they acknowledged the attractions of urban-style opportunities whilst for their children, they

favoured the protection and tradition of a rural upbringing. In the latter environment, social cohesion was encouraged through mutual aid and the social benefits of kinship relations. For children, this social context was considered to discourage risky behaviour.

The benefits of a socially cohesive society have been described for both field sites and were regularly drawn on by participants to improve their own capacity to minimise risk. Levels of social cohesion were idealised in a past era in which people exerted more control over their local social environment and were able to prevent outsiders from settling locally. Attitudes such as that cited from man in Shambajiji, demonstrated the perceived negative effects of the lack of a cohesive society within the two field sites.

> *'Nowadays someone can just immigrate from another village and come to live in this village, maybe he is a thief, but in the past such people were being chased away. But for example now, someone can just come to live in this village without being questioned'.*
> [FGD 31/01/06 EMAMA]

Perceptions of loss of control over social relations noted during the fieldwork extended throughout both villages. They may have led to jealousy and competition between families. In reaction to social tensions and perceived uncontrollable risk exposure, outsiders were often the first to be blamed. In the 1980s in Barakijiji an outbreak of locally inexplicable deaths occurred amongst households located within the vicinity of one particular well. After a few days the deaths were traced to consumption of water from the well and a cholera outbreak was identified. However, local explanation, even amongst biomedical health workers, expressed the social tensions prevalent in the village. A recent immigrant to the village was blamed and accused of placing poison in the well. The well was covered over and fell into disuse. The outsider was branded a witch and chased out of

the village. Unfortunately for her reputation, her departure coincided with the end of the outbreak, further condemning her.

In contrast, outsiders with little comprehension of the local social landscape could become the accusers if they experienced unpredictable and inexplicable misfortunes on migration to a new area. Patience, a 58 year old woman living with two of her grandchildren was accused by a neighbour, a recent immigrant to Barakijiji, after the neighbour lost two of her children. Given her established social position within the community, the accusations were never investigated and it was the outsider who was visited and reprimanded by the village council. Patience explained:

> *'He told her that this woman was born right here, we saw her, we know her, you are a stranger here and when your children die you say that this woman bewitches me, why should she bewitch you? We know this woman that she is not a witch.'*
> [Patience, Barakijiji]

In both these examples, fear and distrust encouraged the social exclusion of outsiders as a negative consequence of social capital. Witchcraft was one of the two most frequently mentioned risks during the research. Of the 40 informants analysed in detail, 30 discussed the risk of witchcraft whilst 28 raised that of HIV. Witchcraft was a common feature of life narratives recounted by all 30 people who discussed it. In contrast, HIV was generally described as an abstract risk and as one primarily affecting others. For some individuals, such as Mariam and Edward, both of whom lived in Barakijiji, witchcraft was considered more salient than HIV. Mariam explained that witchcraft was more dangerous than HIV since witchcraft was embedded within social relations, which were unpredictable, whilst HIV could be controlled by the individual. This assessment contradicted her behaviour since she did nothing to control her own exposure to the risk of HIV and her suspicion of

her husband's infidelity. However, she prioritised strategies to minimise risk of exposure to witchcraft through social engagement, church attendance and reliance on religious faith and the use of traditional protective medicines around the house and family. Edward also feared the consequences of witchcraft over those of HIV for similar reasons. In contrast, however, he claimed that he actively controlled this latter risk through the regular use of condoms with his wife and the maintenance of fidelity. He treated witchcraft with equal precaution, drawing on social capital and his relations with his ancestors to reduce his exposure. Believing he had lost both his father and his eldest son to witchcraft through the jealousy of others, he was careful to ensure social participation and the sharing of his success and knowledge with others, through voluntarily leading development schemes and contributing to community debates. Conceptually, beliefs in witchcraft and HIV are connected since both require the individual and community to search for cause and to attribute blame, given that each has a social or personalistic cause and consequence (Rodlach 2006). Both risks are also derived from social causes but with wider consequences as either health or economic risks and demonstrate clearly the centrality of social risk in emic worldviews.

6.6 Conclusions

This chapter has highlighted the dominance of social risks in participants' risk discussions. It has shown how risk perception is embedded within and influenced by the broader social context. The relative salience of different risks, and of risk management strategies, has been shown to be subject to various social influences. I showed that risk perception for all types of risk is embedded within social relations and how this leads to much ambiguity in the social relations themselves. I highlighted through detailed case studies how differing perceptions of aetiology were themselves embedded within the social landscape. I also demonstrated how collective social cohesion informed risk perception and risk aversion

and could produce both positive and negative consequences. Social position was demonstrated to be dynamic according to social environment and to affect risk perception through socio-economic status. Further, social position defined through level of social engagement, as one aspect of bridging social capital (Woolcock 1998), was defined as both a strategy to reduce risk and as an indicator of risk priorities. I also demonstrated the dominance of social risks within risk perception and risk management strategies. In this way I have shown that social relations underpin risk perception, salience and aversion strategies. However, heightened awareness of a particular risk does not necessarily translate to risk aversion strategies[see p64-5 (Pool and Geissler 2005)]. These are themselves related to a wider discourse of power relations, perceptions of control of a risk and control of the future. It is these aspects of risk perception which will be the subject of the following chapter.

Chapter 7: Shaping the future in risk perception

7.1 Risk and misfortune

Risk, in this study, has been defined etically as the likelihood or possibility of danger. A more emic perspective described it as follows:

> *'Now I think hatari, uwezekano wa hatari is not protecting yourself against such things that may cause harm, those are risky things, not to have protection against those things. Lack of a protection against those things.'*
> [FGD 17/01/06 BNYFE]

In contrast to such future oriented definitions of risk, a misfortune describes an event which has already occurred. These terms are introduced and juxtaposed here in order to highlight different emic approaches to the management of future possible dangers and to the interpretation of negative events which have already occurred. Vernacular terms for risk have already been described in Chapter 5 where their respective application helped to identify a thicker understanding of the risk concept within the socio-cultural context of north-western Tanzania. These included *hatari* or ***bubi*** as the terms, in Swahili and Sukuma respectively, most frequently used following my own application. Other terms included *kuponza* ('to expose something/one to danger') and *kubahatisha* ('to take a chance'). Misfortune was most frequently described as *afa* (pl. *maafa*) (91 references in both FGDs and IDIs) which described an accident, calamity, catastrophe or disaster which had already occurred and *dhara* (pl. *madhara*) (84 references in both FGDs and IDIs) which was generally applied to misfortunes which had caused bodily harm and was translated as accident, harm or injury. *Balaa*, derived from Arabic, was used within specific circumstances, particularly in discussing witchcraft. This was translated as

calamity, plague, grief or misfortune. The two concepts of risk and misfortune were frequently interlinked since people's strategies of thinking about risk in the future were demonstrated to be deeply influenced by what had happened in the past. Jonas, a 50 year old Sukuma farmer, described how misfortune is an integral component of risk perception in the field sites:

> *'I can say it in another way, that people in this community, where we live, first of all we deal with … more often we don't deal with the source of the problems, that's the first thing, but we deal with the results'*
> [Jonas, Shambajiji]

In fact, Jonas suggested that people tended to prioritise retrospective management of misfortune over prospective avoidance of risk. Whilst this view was extreme and there were certainly many strategies for avoiding risk in evidence, interpretations of retrospective risk, in other words, misfortune, were also dominant discourses. In fact, the ability to imagine and shape the future was often founded in the meaning attributed to past events. The interplay between risk and misfortune was thus a dominant theme in the research and one which will be explored in this chapter describing the various ways in which people shaped their future.

I begin by introducing an example of this relationship between risk and misfortune, highlighting distinctions between the manner in which individuals discuss both retrospective occurrences and future possible events. I then examine the interstitial role of traditional healers to demonstrate how interpretations of the past have contributed to risk aversion in the future. I show how traditional healing was interpreted as a traditional practice but was also adopting new strategies by drawing on more recent local development ideologies to emphasise its salience within a *kisasa* (modern) lifestyle, as a

way of shaping the future. I then examine the example of witchcraft as one of the most frequently discussed risks in the data. I compare how this is understood emically as both risk and misfortune, highlighting how people's approaches to the future are influenced by their interpretations of the past.

Having explored the interplay between the past and the future, in Section 7.3 I return to the concept of risk as the possibility of occurrence of a future negative event. I show how individuals exert agency as a way of managing the future. I explore two particular social strategies for risk management; those of microfinance or ***ifogong'ho*** schemes and the manipulation of social capital. Having demonstrated strategies for controlling future possible risk, in Section 7.4 I explore structural and conceptual factors which may inhibit individual perceptions of agency in the control of risky futures. In particular I examine poverty and vulnerability as endemic features of the environment and fatalism as a discourse on agency in the control of risk. Perceptions of fatalism are examined in relation to local Sukuma cosmologies.

Finally, Section 7.5 reviews the ways in which people assert their control of the future. Taking women from the field sites as case studies, I examine how agency is related to their social position. Having presented which types of women were more likely to exert control over their own futures by controlling risk, I explore how, under certain conditions and in the control of certain risks, taking other risks has been normalised as an acceptable strategy for improving the future.

7.2 The interplay between the past and the future

7.2.1 Tabitha's life story: Evidence of differing approaches to misfortune and risk

Tabitha, a 52 year old farmer and community leader who lived in Barakijiji had been educated to O'level standard. She lived in a cement block house which she had built slowly over many years since she was dependent on a minimal income from farming profits. Before her migration to Barakijiji, she had been economically secure in Mwanza City with a husband who had run a successful business. At the time of the research, Tabitha was living in more constrained economic circumstances with her second husband. Tabitha had suffered several misfortunes in her past. The excerpt below describes one of these:

Tabitha:Aa, while working in the accounts office my first husband I used to live with in Mwanza there was stabbed with a knife by bandits so later on I moved, I changed the job and it was when I asked for a chance to move to this place.

ND: Okay.

Tabitha: I moved from town to here so I changed that post.

ND: And why did you want, if we can go a bit deeper, what year did those bandits do that?

Tabitha: In 1977.

ND: Mm. And when it took place your husband passed away?

Tabitha: Mm.

ND: And why did you decide to shift from Mwanza?

Tabitha: I feared because those people who were …I knew those people who did that to him.

ND: Really?

Tabitha: Ee, they used to be his friends, mm.

ND: They have never been arrested?

Tabitha: They were arrested but then you know he is dead so there is no, there is no…

ND: A witness, can I use that word?

Tabitha: Witness.

…

ND: And why did they do that, do you know? Do you ask yourself why did they do that?

Tabitha: He was earning income, we used to have a business, he was doing business and I was working.

ND: Mm.

Tabitha: Now it's their business that brought that problem.

ND: And do you think it was caused by lust for money?

Tabitha: Ee, money.

ND: And were they businessmen too or they were workers?

Tabitha: They were his fellow businessmen.

ND: But he was above them?

Tabitha: Ee, his income was above theirs.

ND: And they are still in Mwanza till now?

Tabitha: Ee, they are in Mwanza, but I don't know about others because I didn't make a follow up on them anymore.

ND: And how many months passed after that before you moved from Mwanza?

Tabitha: Mwanza, in '77, in '78 I shifted from Mwanza to come here.

ND: And within one year?

Tabitha: Within one year I shifted.

ND: But within that year you said that you were afraid?

Tabitha: Ee, I was afraid.

ND: You were afraid because they continued to live near or?

Tabitha: They thought that perhaps I will sue them, so after they were arrested I thought that no, I should change the job.

In this excerpt Tabitha attributed her decision to move as a risk aversion strategy, to ensure her safety, which she felt was at risk. Given her circumstances at that time as a single mother with few reliable social networks, (her parents were in Ukerewe and her husband's lived in Tabora), migration was one of the few options available. She was assisted in this decision by her role within local government. This provided her with a route to a safer environment and ensured that she had work on arrival. Moreover, in terms of risky social relations and exposure to jealousy, she demonstrated retrospective risk avoidance as a direct reaction to the misfortune of her husband's murder. Following Giddens, I suggest that the death of her husband was a 'fateful moment' (Giddens 1991) in Tabitha's life and one that threatened her 'ontological security' (p.114) i.e. the feeling safe and secure in her chosen environment, which resulted in an alteration of her self-identity. It was the loss of security which necessitated her relocation and the change in her social identity as a government worker, causing her to adopt agriculture as her principle income source. Rather than consulting 'oracles or propitiating divine forces' (Giddens 1991), since Tabitha was raised in town and had little knowledge of traditional practices, she instead chose a different route, that of migration. She was thus able to re-establish this sense of ontological security in a new environment and in a new social role. But, having reasserted her sense of safety, Tabitha did nothing to prevent future occurrences of theft. This was despite having also lost a son to *majambazi* (thieves) in Dar es Salaam, and having had all her goats stolen in Barakijiji '*I had goats but thieves came and broke the kitchen and stole*

ten goats ...'. Instead, as the excerpt below demonstrates, she expressed her own habituation to loss through theft and referred to divine intervention through God. This sense of habituation was a common theme amongst research participants, expressed in the phrase '*nimeshazoea' (I am used to it)*. It was used frequently in discussing risks over which individuals sensed little control. It was most often applied in discussions surrounding health risks and will be discussed in more detail in Chapter 8.

ND: From what I see is that let's say you have got so many experiences with ...with bandits.

Tabitha: Mm.

ND: But till now do you still fear it or?

Tabitha: Aa, I am used to it [nimeshazoea].

ND: You are used to bandits? [Laughter]

Tabitha: Aa, now what can you do, ee, when you go inside you pray to God to protect you, just to help you.

ND: So you think you can't prevent bandits?

Tabitha: No

In contrast, Tabitha's perception of social risks was heightened through experience and she did what she could to decrease her exposure to jealousy and to increase her access to local social capital. Strategies included regular church attendance, participating in savings and loans groups and a choir, heading the funeral group in the local area and acting as a women's counsellor.

ND: How would you say that they perceive you?

Tabitha: They also take me to be their counsellor.

ND: Mm.

Tabitha: Because when most women are stuck they come, others perhaps have quarrelled with their husbands they come to me to say that mother help us, ee, reconcile us, so really I have often been a link.

ND: Mm.

Tabitha: For both female or male youth.

ND: Mm.

Tabitha: I really like to talk to them and counsel them.

ND: And why do you think you have got that role?

Tabitha: I don't know now. Aa, I think they just consider me to be an important person.

ND: Mm.

Tabitha: Mm, important.

ND: Mm.

Tabitha: Important person to them, to give them ideas that can build them.

ND: Mm, and do you think it's because they know that you are a big person in church?

Tabitha: Mm.

ND: Or because you were a big political person or it's because of what?

Tabitha: All these contribute.

ND: Mm.

Tabitha: While working I never quarrelled with anybody.

...

ND: And if you don't do this [contribute to funerals and social life in general] *do you think they would have considered you differently?*

Tabitha: They would have considered me so differently.

ND: Ehe.

Tabitha: That is, if they hear that I have got a problem they won't come, but today if they hear that I am sick, if they hear that I am sick, even if I am not seen in church, even if I am not seen at the funeral they will ask themselves ''why didn't she come today?''

Tabitha was fairly unique amongst the research participants since she had never, as an adult, consulted a traditional healer or used traditional medicine. For many, traditional healers provided both retrospective explanation for misfortune and assisted in the prevention of possible future risks. This interstitial position between risk and misfortune is explored in the following section.

7.2.2 Traditional healing as interstice between the past and future

As the previous example highlighted, the ability to manage the future was often founded in the meaning ascribed to the past. This perspective produced a continuum of ideas rooted in experience and re-produced in the present in order to influence the future. Despite perceptions of some who defined the majority of healers as 'profit-makers' and others who claimed that their religion does not condone such 'traditional' practices, healers continued to fulfil a central role in the daily struggle to explain the past and influence the future. In fact, their dominance within both field sites in treatment seeking (present), interpretation of misfortune (past) and in the control of the future through divination, placed them in a unique position with regard to both the maintenance of tradition and the attainment of progress towards a *kisasa* lifestyle.

The centrality of their position within the field sites reflected a wider national trend towards professionalisation in Tanzania (Langwick 2005). The practice is slowly being relocated from rural, home-based and community-embedded practice to peri-urban and

urban ‘hospitals’. These institutions have slowly appropriated the cultural tools of biomedicine, taking in ‘patients’ from disparate areas, reducing their ability to draw on social relations to define cause of illness and treat the whole ‘person,’ to a more biomedically oriented perspective in which they ‘examine’ the ‘patient’ and identify and treat the ‘disease’. One of my research participants, Joseph, who owned a small shop run by his young son in Barakijiji, had exploited these trends and opened a hospital to the north of the village, towards Musoma. This hospital provided holistic treatment for its patients, many of whom had previously failed to find a cure through biomedical services elsewhere. Whilst he described those who resided at his clinic as ‘patients’ and was able to identify the ‘disease’, Joseph recognised the importance of context to illness and derived much of his popularity from the amount of time he spent discussing the wider framework for patients’ diseases. He also claimed to have been successful in curing certain patients who had been unsuccessful elsewhere. I spent a day during fieldwork with Joseph and his patients and was able to record interviews with four of them. Each had spent a few months at the hospital, where they lived in cement block rooms with a family carer who provided food. They described complex illness histories defined generally as caused by witchcraft or *mchango* and claimed that Joseph had helped them to recover. Rooted within this more holistic approach, healers, such as Joseph, also helped to identify cause through the practice of ‘*kupiga lamri*’ (divination). This widely practiced aspect of traditional healing has been subject to national policy debate resulting in legislation prohibiting healers from identifying individuals as the cause of a particular misfortune. This is due to the association with community-based retribution in witch killings[28]. However, in reality, this has not prevented the majority of practitioners from identifying proximate cause as neighbours or providing sufficient clues to enable the client to make their own assumptions about cause. Through such methods, healers assisted individuals to interpret misfortune.

[28] There were a total of six occurrences of witch attacks during the six months I spent in Barakijiji. Three of these occurred within the ward whilst three were reported from neighbouring villages.

Traditional medicine in the field sites was also linked to shaping the future. Divination was regularly practised and 'treatment strategies' suggested as ways to influence the future. Common amongst these were the appropriation of wealth or power. For such requests to be granted, they usually required personal sacrifice. However, due to the secrecy surrounding such approaches to wealth accumulation and the inevitable element of rumour and gossip surrounding those who had achieved a *kisasa* lifestyle through sudden wealth it was difficult to uncover specific practices believed to be effective. One practice, however, was described as sleeping on the floor under the bed for the rest of one's life. If this was not adhered to, wealth would be lost. In a community collectively and individually striving for *maendeleo* (development), the success of others was often attributed to supernatural supplication and rarely to individual achievement.

Healers were also integral in risk aversion practices. They provided amulets, medicine and practised scarification and the insertion of medicine to protect an individual from a possible future risk. For example, a traditional healer and birth attendant (TBA) from Katijiji, who specialised in the treatment of *mchango* described the prevention of risks such as jealousy for pregnant women:

> *'They become jealous. Now if you give her protection, it is good to protect if you only use medicine, on the day of delivery this protection, you can give her to drink even if she is three months pregnant, there won't be anyone to attack you. Again when the pregnancy is six months old you give her again, please put this! She will have a normal delivery'.*
>
> [TBA, Katijiji]

A commonly cited example was the application of medicine to prevent road accidents. This was described to me informally by Joseph in the excerpt from fieldnotes cited below:

He said that in Usukuma the implement used to insert dawa (medicine) *into the skin to protect an individual from particular risks is the 'wembe' which is an instrument made from metal and sharpened into a leaf shaped, slightly scooped and razor sharp edged spoon at both ends. This is used to mix the dawa but also to insert the dawa into the skin. ... These scars are not made only on the chest. People can be cut on the arms, on the sides under the armpits, at the base of the back or on top of the head. The location of the treatment is often dependent on the type of dawa used. It can be used to prevent car accidents when it is most usually applied to the feet or forehead. Joseph told us that many people who drive for a living have these kinds of scars. But these treatments can also be used for purposes other than to protect the individual. For example a driver could have dawa inserted in order to ensure that he got many clients and so made money, in these cases the dawa used is different but the scar itself would be the same.*

[Fieldnotes: 01/12/05]

Other strategies included wearing bangles amongst children to ward off witch attack and the construction of small houses to respect the ancestors as a way of ameliorating risks in the future, hence increasing their ability to exert agency in the control of risks.

7.2.3 Witchcraft as both risk and misfortune

Tabitha's example cited in section 7.2.1 showed how she implemented risk aversion through migration, in response to misfortune. Her socio-economic position facilitated her actions. Others in less financially secure positions also employed the same strategies in reaction to misfortune. In each of these cases the move resulted directly from regular exposure to what was perceived to be the otherwise uncontrollable risk of witchcraft. As

such the risk was considered sufficiently salient to warrant a risky economic move, replacing the security of their current socio-economic position with an uncertain future elsewhere. For example, during my stay in Barakijiji, I lived opposite an Islamic family who had moved to the village because of the husband's work as a fisherman in Samakijiji. Since her husband was often away, the wife spent much of the time alone with her four young sons in their cement block house which they owned. They had invested in the house, believing this would become a permanent home. However, towards the end of the research, I was informed by the husband that they were trying to sell up and move elsewhere. He was at first reticent to tell me why. On further enquiry he told me that they were afraid of another neighbour of mine, one whose reputation as a witch was gradually made known to me during my stay. He stated that she came inside their home at night and 'played with them' and that they could no longer live with this harassment. After leaving the village, I was told that they had managed to sell the property and had moved away.

Other reactions to misfortunes interpreted as witchcraft through the retrospective intervention of traditional healers included *zindikos* [traditional rites] and other forms of protection. In attributing misfortunes to witchcraft, healers were, in fact, furthering both their social reputation, by increasing clientage, and income, since they usually performed the protective rites as well. The following excerpt describes the actions Mariam took following her visit to the healer described in Chapter 5.

> *Mariam later told me what had happened when PN and the healer had visited her in order to protect her home from further witchcraft attacks. She said that her neighbours didn't know what he had come to do but just that she had had some visitors from town. They performed the zindiko at 9pm when there was no-one to witness it and the houses and doors and windows had all been surrounded by the medicine. Each of the members of Mariam's immediate family was also given*

personal protection with a small cut in their arm where some medicine was inserted. The cut was so small that it was barely noticeable.

[Fieldnotes: 15/11/05]

Witchcraft was one of the two most frequently raised risks during the research. Heightened fear of risk exposure had led to embedded strategies for prevention. These included both social strategies for risk avoidance, for instance through trying to avoid jealousy, entreating ancestors for protection and cultivating social relations with 'dangerous' neighbours, and supplication to benevolent, supernatural forces through strategies such as sleeping with a bible under the pillow or wearing rosaries which glowed in the dark when an intruder came near.

In this way, witchcraft, as the inverse of traditional healing, echoed its position in the interstice between risk and misfortune. Witchcraft was both an interpretation of misfortune and a salient risk to be avoided, while traditional healing was a route towards both interpretation and protection. Through this individuals sought explanation or assistance in controlling future risk. In other contexts and with regard to other risks, the same individuals demonstrated their own capacity to make active choices to influence the future without resorting to supernatural forces.

7.3 Managing the future through agency

Whilst it has been demonstrated that many individuals sought explanation for misfortune and protection from risk through traditional healers, they also demonstrated their capacity for exerting agency and making active choices in their attempts to control the possibility of future risk. The examples presented here highlight specific lifestyle strategies actively chosen to influence the future in the immediate risk environment.

7.3.1 Microfinance group membership

Naomi, who described herself as a farmer and business woman, was 42 and moved to Barakijiji from Wilayaji as a young, unmarried woman working in an office. Thus, whilst she did not originate from the village, she had spent all her adult life there, was ethnically Sukuma and married into an indigenous Barakijiji family. Her arrival in Barakijiji as an independent young woman suggests that she had had more opportunities than many in the area and indeed, she was educated at a technical college after completing primary school. This was largely due to the efforts of her mother, who separated from her father when Naomi was first born. Her mother had been keen to educate all her children and worked hard to afford this. Hence she would often leave Naomi and her brother alone for long periods while travelling and preaching for her church. When Naomi was approximately 10 years old, her mother returned later than planned following her second trip and found that her two children had been unable to support themselves adequately. She swore never to leave them again. She adhered to this promise and remained with them but with fewer resources, earning income from petty business. Additionally she taught Naomi the importance of farming, not as a principal source of income but rather as insurance against too great a reliance on business. Naomi felt she had been raised with a fundamental belief in the value of income diversification and an outlook towards making choices and seeking ways of influencing the future. These were principles she upheld in her life in Barakijiji and which were clearly demonstrated through her participation in microfinance groups.

Naomi was candid about her involvement in savings schemes, recognising the benefits she accrued through expanded social networks in times of crises as a strategy for influencing the future. One particular group in which she was involved aimed to invest in cooking pots to provide food at funerals and festivals, rather than hiring from elsewhere. She described how the main group in which she was involved actually separated because of contradictory aims and outlooks towards the future. Half of those involved wanted immediate gains on

an annual basis to cover festival expenses whilst the other half '*felt that our colleagues have opinions that they don't want us to do what, to make a step forward*' and had longer term visions of a more financially secure future through group participation. She was closely involved in the initial conception of several savings groups in the village, which she claimed were introduced '*for development, that we women should at least have some progress*'. Naomi attributed her ability to invest in petty business schemes, such as ice selling, to her involvement in microfinance groups. For this she relied on her acceptance within a trusted social group, wider than that within the direct vicinity of her neighbourhood or kin network. However, Naomi was also pragmatic about these social relations. In an informal conversation with her she stated that '*everyone here follows their own path and helps themselves first*'. In fact, she saw her group participation as a route to facilitating this self-enrichment. Her home in Barakijiji was adorned with the display of her material success and she attributed this directly to her money management schemes, facilitated through microfinance group membership. Since membership was dependent on regular repayments, she acknowledged the element of risk involved in accepting individuals as members in the group. Consequently she stipulated that on entry, each member must be supported by a guarantor, who would repay the debt in her place, and provide security such as material possessions to the value of the loan, if the guarantor also failed.

Whilst Naomi acknowledged the risks of participating in microfinance schemes, she was also a keen proponent of their benefits as a route to exerting greater influence over the future. Theresa, aged 44, who had been raised within the Ward and was a regular RC church attendee, was less pragmatic and denied herself the opportunity to improve her own future. She refused to participate in microfinance groups to avoid the very same risks as those cited by Naomi. She claimed that she had initially been a member of a large group which managed to collect 6 million shillings (approximately £3,000) but that the secretary

and chairperson embezzled the cash. This had naturally increased her reticence to invest in another: '*so finally I have no trust with them (savings groups) ... you will struggle and waste your resources for nothing*'. Her decision with regard to group participation was ostensibly based on a desire to decrease her exposure to possible financial loss due to an understandable lack of trust in social relations. But in doing so, she also limited her ability to invest in a more secure future.

In this, she proved an exception, since the majority of women and many men approached at some point during the research were involved in one or more savings and loans groups. Theresa's lack of access to the benefits of this type of bridging social capital (Woolcock 1998) may have been attributed to her reputation in the village. Since her mother was renowned as a witch, others gossiped about her involvement in nefarious activities and this may have contributed to an inability, rather than refusal, to participate in some social groups. Of the 40 informants, four women were regularly rumoured to be witches and of these, only one woman described herself as involved in social groups, namely village government. The other three women presented their social life through church attendance but did not participate in other voluntary groups.

Other individuals were involved in more than one social group, but this often depended on alternative income sources available to contribute funds on a monthly basis. However, even the very poor endeavoured to exert some control over their access to resources at times of stress, through group involvement. During an informal conversation, Leonie, a 31 year old third wife to a polygamous husband resident in Barakijiji, described how even the poor struggle to earn money weekly through casual labour to maintain their contributions, since it benefits them as a strategy to influence the future. Such opportunities were readily grasped by women in both field sites since they were in possession of very few alternative means to insure against future risks.

Men were less likely to join savings or loan groups in both sites. This can be attributed to the wider range of alternative income-generating resources available to men through market gardening or cash crop business such as rice or cotton or even in the ownership of livestock, which was also described as an insurance policy (*akiba*) for the future. Denis, a 38 year old farmer and village leader in Shambajiji, described the keeping of cattle as a more secure alternative than keeping cash in the bank. He explained to me informally that whilst livestock management was not without risk of exposure to theft, disease and wild animals, these risks were more immediately controllable than those he associated with banks. Additionally, the benefits were not just in the ability to control risk exposure but also in the small weekly profits from the sale of milk. Such profits gained whilst maintaining the initial investment, he felt, made cattle rearing a more reliable and dependable source of financial influence over the future.

7.3.2 Reliance on social capital

Whilst Naomi's example showed primarily how women exert choice in influencing their risk exposure, Denis case illustrates how men have access to greater strategic choice in influencing the future. The following case studies illustrate how it is not just financial controllability that supports individuals in determining their own futures but social controllability through investment in and manipulation of social capital. Returning to the definitions of social capital described in Chapter 6, I define it by its functional nature: as a means of facilitating the actions of individuals who are within the structure (Coleman 1988; Esser 2008). This interpretation highlights reciprocity, interpersonal trust and mutual aid within social relations (Coleman 1988; Putnam 1993; Kawachi and Berkman 2001). In other words, and taking the example of Barakijiji, it was the reciprocal nature of social relations which was relied upon to assuage the risks of social isolation in an unstable

and vulnerable, agriculturally based socio-economic environment. Particular local examples of social capital in the ward included the ability to make requests of kin (as bonding social capital (Woolcock 1998)), the expectation of their assistance and the accumulation of this assistance which would eventually require reciprocity. Other examples of bridging social capital which drew on more distant social ties within the local community (Woolcock 1998) included the enhanced social status associated with being a patron within patron-client relations and the collective expectations of community reciprocity through funeral attendance and financial and labour contributions to village development activities (as bridging social capital (Woolcock 1998)). Thus, whilst for those who actively engaged in social life this provided a supportive environment which facilitated direction of individual and collective futures, there were also aspects of coercion embedded within the system.

In formal and informal discussions with residents in both field sites, environmental instability was frequently referred to, as was the dependence on a manipulation of social capital. For example, Thalia, a 51-year old Muslim, had migrated to Barakijiji to live with her husband but, at the time of the research, lived with her mother and two grandchildren following two divorces. She outlined the advantages of social relations, both on a daily basis with neighbours to minimise food shortages and in the longer term as a route to borrowing land for cultivation of subsistence crops for the landless. Exploitation of social capital to increase control of an uncertain future for those without land was also cited by other women in Barakijiji. Serafina, a 33 year old tailor who had come to Barakijiji to join her third husband and who possessed no land, felt that she was able to pursue short-term subsistence farming as a direct consequence of access to reciprocal social relations, hiring rice fields when environmental conditions were favourable. During an IDI she compared these benefits of social inclusion to the risks of social isolation, which, alongside the avoidance of social responsibility, she prioritised as a salient risk. This was demonstrated

through reciprocity in social relations and regular attendance at funerals. Maria, a 50 year old Nyamwezi landlady from Tabora, who arrived in Barakijiji with her husband when she was young and raised her children there, also attributed her ability to influence the immediate risky future to social capital which allowed her to borrow land.

Maria: Ee just a small one, I just hire from people , they give me and I cultivate

ND: ... Do they give you a small piece every year?

Maria: Mm

ND: About how many acres?

Maria: Ee, not an acre, about half an acre

ND: And do you have to pay for the land or they just it to you for free?

Maria: No, they just give it for free

ND: Because of ...

Maria: It is due to someone's sympathy/kindness, he sympathises with you then he gives you

[Maria, Barakijiji]

This reliance on social capital through the maintenance of reciprocal social relations based on demonstration of trust was also evident in the example of Hope, a 50 year old divorcee and Born Again Chistian, who lived alone in Barakijiji and made her living from farming. Hope felt that she was particularly exposed to the perils of unfavourable social relations due to her status as a single woman and she described being careful to avoid arguing with her neighbours. She explained how this was an explicit strategy to avert accusations of witchcraft:

Hope: ... If your behaviour is good, that's what they care about ... Then perhaps they see that you sometimes fight, you keep disturbing other people with

your words in their compounds. Perhaps you disturb them, perhaps you fight with a neighbour, you insult each other.

ND: Mm

Hope: Perhaps insulting each other, sometimes perhaps after insulting each other then an accident occurs

ND: Mm

Hope: Perhaps a child passes away, so they definitely will follow up on you … perhaps many people like me.

[Hope, Barakijiji]

Participation in funerals and on government committees also enabled her to exert control over her social future. A similar strategy was adopted by Patience, a 68 year old woman who also lived alone with her two grandchildren. During an IDI, she recounted how her participation on government committees and social reputation in the village saved her from having to relocate as a result of an accusation of witchcraft, '*when you become old, then those things* (accusations of witchcraft) *are a must'.*

Thus, all these women attributed their ability to influence the future to their accrual of social capital. However, the majority of these same women also highlighted the unpredictability of social relations, even whilst they attempted to exploit these to assert control. For example, Maria stated that she could not predict what misfortunes might occur, especially with regard to the actions and thoughts of others and so to protect from this element of unpredictability, it was important to rely on God. Hope's description of her holistic trust in God, '*I depend on God for everything*', suggested a resignation that she had little influence over the future. She described her concern over those elements of social relations which were uncontrollable and the dangers other people may cause; '*you can't know what's in someone's mind*' and '*you cannot stop a witch, if someone wants to get*

you, he will use all means'. This reliance on God to protect from the unpredictable was also reflected in the fears that Tabitha expressed when describing the murder of her husband at the hands of his business colleagues; '*now what can you do, ee, when you go inside you pray to God to protect you, just to help you*'. These examples demonstrate that, although exploitation of social capital was considered a readily available mechanism for influencing the future, it was not considered to be without risk. In fact, whilst individuals exploited social capital and felt pressure to involve themselves in reciprocal social networks as another route to risk minimisation, they also often highlighted the uncontrollable nature of social life and regularly cited the unpredictability of others, both in discussing witchcraft and as a push factor towards increased church attendance and a greater reliance on God and God's will. Even those who did not consider themselves regular church attendees relied upon a cosmological discourse in resignation to the uncontrollable element in social relations, even whilst recognising the limitations of this strategy. Such aspects of fatalistic discourse will be explored in section 7.4.2.

I have shown how women drew on social capital, often through avoidance of social dangers such as social isolation and a lack of reciprocity. Men also demonstrated their awareness of the benefits of manipulating social capital in order to control their future through enhanced social relations and reputations. The strategies they adopted and described, however, often focused on active methods to control their place within the social network, either at village or neighbourhood level. Most commonly this was expressed through involvement in village development activities and in the sharing of accumulated knowledge and wealth. They were also more exposed to the pitfalls of a diminished social reputation since their role was often more public than that of their wives, whose principal concern was to access neighbourhood (through funeral attendance) and kin (through reciprocal aid) networks for risk aversion. Expectations on men were associated with their economic status more than the reciprocal social relations in which women were

embedded. During interviews some men explicitly referred to this exploitation of social capital and the economic expectations to which they were subject. For example Bernard, a 52-year old teacher and strong AIC believer who lived in Barakijiji with his wife and children, explained how he actively promoted his social reputation through regular contributions to wedding funds. He stated that his contributions meant that he was invited to many weddings and that this would in turn assure him of reciprocity in contributions when it was time for his own children to marry:

ND: *And do you get invited to many wedding committees?*

Bernard: *Yes*

ND: *And why do you think?*

Bernard: *It is because I am willing to contribute*

ND: *Mm*

Bernard: *And I depend that one day, they will do this for me too, they have already contributed to my wedding with my wife, me and my wife*

[married recently after several years co-habiting]

[Bernard, Barakijiji]

In Shambajiji, Jackson, 56, and James, 49, both farmers and irregular church attendees, described their participation in village development activities. They relied on this to influence their own futures through dependence on reciprocal social networks. James belonged to a farming group to ensure assistance in preparing his own fields. He was regularly involved in village development activities. Jackson also regularly contributed to activities such as digging community wells or constructing new buildings for the local primary school. He attributed his social reputation directly to community involvement, since he felt he was neither rich nor powerful and he exploited this when faced with unforeseen difficulties or unpredictable expenses. Such involvement provided a level of

security for both men and their families, whose lives were often otherwise insecure and unpredictable.

This insecurity was evidenced not just amongst the less well-off. Those involved in more lucrative, alternative business activities also expressed their exposure to insecurities and the need to rely on the reciprocity of social capital. In fact, given their reputation as wealthier community members, many expressed increased pressure to demonstrate social responsibility in order to minimise exposure to jealousy both within and outwith kin relations. John, a 29 year old fisherman and long-term resident of Barakijiji, provides a clear account of how supporting his impecunious relatives at least boosted his social capital. He had been visited frequently by relatives from elsewhere and he described how his household increased in recent months due to long-term visitors who saw him as wealthy. Whilst these relatives formed an additional burden on household resources, John felt unable to ask them to leave for fear of the repercussions he would face. In fact, he stated that he was socially obliged to host them for as long as they chose to remain. Despite the resource constraints, John also felt that their presence shielded him from accusations of a lack of social responsibility and the possible risk of exposure to witchcraft.

Strategies for exploiting social capital have been demonstrated to be similar for both sexes whilst underlying rationales were differentiated by gender. Overall, women cited the risks involved in a lack of access to social capital more frequently than men, with three of the ten most commonly reported risks associated directly with social risks as opposed to one amongst men. Yet, both sexes emphasised their awareness of the risks involved in jealousy; similar proportions of both men and women cited this as a pertinent risk. For men this related primarily to jealousy of more public economic or political advancement whilst women emphasised social risks within the immediate neighbourhood environment. In both

cases, strategies were consciously adopted as ways of exerting agency to control risk. However, concurrently, individuals regularly referred to their vulnerability to unexpected occurrences and their inability to exert complete control due to the endemic state of poverty within both field sites. This will be explored in the following section, along with other factors that may inhibit agency in the control of risk.

7.4 Structural and cognitive barriers to agency

7.4.1 Poverty, vulnerability and risk

Whilst etically I did not consider poverty a risk but rather a condition or state, emically it was cited as a risk by many individuals when questioned during the research. Many felt that poverty underpinned and exacerbated their exposure to other risks. The following example, edited from fieldnotes taken during attendance at the local court, highlights some of the negative consequences of poverty, in this case domestic violence and the separation of husband and wife.

> *Case five was between Matilda and her husband John. She said he attacked her on 13th August in Nyashigwe village. ... Evidence began with Matilda stating that there was no food in the house and the three children were hungry and John attacked her. She then went and took the children to her younger sister's house after he had left to go to his younger brother's place. He later returned and asked her why she had taken the children to her sister's and then he beat her again. She reported this to the police in Barakijiji and was given a PF3 form to attend the hospital for treatment. ... This opened the case and he was arrested. Evidence was then heard from the eldest daughter, aged 12 and in Standard 1 at school. Her name was Mariam. She said her father hit her mother on that day causing serious harm then he ran off.*

[Fieldnotes: 061005]

These consequences were recognised more abstractly by several IDI participants. For example, Rachel, a 21 year old youth, educated to Form Four level and resident in Barakijiji, where she worked daily in her father's bar, found herself unable to definitively rank the risks she considered salient in her local environment. Rather, she emphasised the complex interrelatedness of all the risks and outlined their mutual association with poverty. She stated '*poverty ... it's what causes even someone not to see that there are risks'*. Joseph, a healer who ran a traditional medicine hospital about two hours from Barakijiji, where his son lived and ran a small shop, explained informally that he believed the root of all risks was poverty. He felt that this forced individuals into more risky behaviour, such as men turning to fishing when they were unable to swim, or women turning to prostitution without condoms. Poverty thus disabled individual ability to foresee the future consequences of current actions, largely through lack of education.

The endemic state of poverty was seen as both the cause and consequence of other structural problems. It was considered to be a consequence of the lack of rains and linked to conditions of hunger by Wilfred, a 55 year old farmer who lived with his two wives in Shambajiji: '*something else that I am afraid of ... maybe we can just call that poverty ... and if God brings water then there won't be poverty*'. It was more commonly considered a cause of increased risk exposure and to exacerbate the consequences of other risks. Male youth in Shambajiji explained that '*what disturbs us most is poverty ... it is the root of other risks*'. This was considered especially so with regard to health risks in a context where user fees were charged for hospital visits, drugs generally could only be obtained privately, and transport costs to access services were rising. For example Loveness, a 34 year old Kerewe divorcee who visited Barakijiji regularly to assist her elder sister in her wood selling business, but whose permanent home was with her mother and children in

Geita, discussed the risk of malaria during an IDI. She focused not on the fever itself, but on how poverty prevents access to treatment: '*if a child suffers from fever and you have no money to buy even tablets what will you do? ... and nowadays in hospitals you have to pay money*'. Edward, a 34 year old Form four leaver reflected this opinion, '*poverty ... it's a risk because the person has no money, someone has got a patient inside there, she has no money to take him to hospital ... as a result he dies for lack of money*'. A final example is given by Naomi, a 42 year old farmer from Barakijiji, who stated, '*now there is someone else who may become ill, she has a low income, she doesn't even have the fare to take her to Wilayaji* [the local District hospital]*, she is poor ... it becomes a problem and actually there are many deaths occurring*'.

Whilst the majority felt that poverty was an underlying cause of risk, paradoxically some suggested that increased wealth heightened risk awareness:

> *P1:* *If you have money definitely you will live in worries, but if you don't have, you just live like that.*
>
> *P2:* *You just sleep like a grasshopper*
>
> *P1:* *You sleep a nice sleep.*
>
> [FGD 17/01/06 BNYFE]

This inverted perspective of the relationship between poverty and awareness of risk hints at an emic link with wider theoretical arguments about the nature of risk in a reflexively modern society, as outlined by Ulrich Beck in his thesis on 'risk society' (Beck 1992). He stated that in the context of late modernity people were no longer subject to everyday concerns about material security but rather had reflexive space to focus on risks created as a result of modernity and security (Waters 1995). However, in the case of individuals

perceived to have reflexive space in the field sites, this was spent rather in the heightened awareness of risks concomitant with material security, rather than elsewhere.

Whilst poverty was considered endemic and the cause of other risks, many participants in the research idealised the benefits of education and felt that lacking this was even more risky than poverty. Rachel suggested that education provided a route out of poverty '*... if you are educated you can eradicate poverty*'. Similarly, a young woman in Barakijiji stated:

> *P4:* *But also lack of education can be more risky.*
>
> *RA:* *Mm.*
>
> *P4:* *Because in ten or twenty years to come you won't really manage to have a good life unless you are educated.*
>
> [FGD 04/02/06 AYTHFE]

Poverty was often linked to the lack of opportunities available to promote *maendeleo* (development) and to notions of what individuals described as *maisha ya kisasa* (modern life). This concept of modernity was a local construct and connected to ideals of progress defined by material wealth, such as the possession of a house constructed of cement blocks with a corrugated iron roof. It was commonly juxtaposed with a 'backward' life described as *kinyuma* (backward) or *duni* (low), suggesting an association between modernity, wealth and education. In some instances the contrast was made between *maisha ya kisasa* and *kishamba* (rural) life. This suggested an association of modernity with urbanity although this was rarely explicitly connected. In pursuing local interpretations of what was considered the opposite of modern life, there was a broad range of definitions. This is in contrast to modern life being exclusively referred to as *kisasa*. Since terms such as *kiutamaduni* (cultural) or *kimila* (traditional) and *kidesturi* (customary) were never applied

as the inverse of *kisasa*, I suggest that the juxtaposition of the western terms 'modernity' with 'tradition', as binary oppositions, makes no sense in the context of this research. This perspective reflects that of many Africanists who have described this contrast between tradition and modernity as problematic (Comaroff and Comaroff 1993; Appadurai 1996; Geshiere 1997; Gyeke 1997).

Male youth in Shambajiji described the connection between poverty and *maisha ya kisasa* as negative during an FGD '*what disturbs us most is poverty but everybody thinks about a modern life*'. Thus, ideas of *kisasa* were associated with routes out of poverty, which drew on strategies such as reliance on social capital. For example, those who shared their resources to assist community *maendeleo* were considered to have a 'modern outlook'. Teresa, a 44 year old farmer from Barakijiji also saw the value of social groups as a route out of poverty and towards *maendeleo,* '*taking part in groups* [is important] *so that your life cannot be tough'*.

Active strategies for minimisation of the effects of poverty and the advancement of *maendeleo* were thus common amongst research participants. In contrast, other discourses of risk expressed a sense of fatalism over individual agency for the control of risk.

7.4.2 Fatalistic discourses

Fatalism, '*as a refusal of modernity – a repudiation of a controlling orientation to the future in favour of an attitude which lets events come as they will*' (p.110) (Giddens 1991) is, he suggests, associated more with modern life than with, what he terms, 'traditional cultures'. Whilst I dispute his certitude in the existence of a homogeneous modernity, his definition of fatalism is appropriate to this research context. This is that '*a fatalistic outlook is one of resigned acceptance that events should be allowed to take their course*'

(p.112) (Giddens 1991). Whilst for some this is considered to reflect a worldview in which the individual has little agency, others have suggested that it is a '*form of impression management*' or performance (Goffman 1959) which assists in distancing the individual from responsibility of making the wrong choice (Caplan 2000; Smith, Cebulla *et al*. 2006; Henwood, Pidgeon *et al*. 2008). Fatalism is also defined as '*the belief that all events are predetermined and therefore inevitable*' (1995). There have been claims that fatalism is a characteristic feature of life in peasant or 'traditional' societies, and that members of these societies regard their own actions as powerless to influence the course of events. Following Seymour Smith (1986), I suggest that fatalism is not an absolute value of any society, but rather one of several discourses which are drawn on, under varying circumstances, in approaches to risk and influencing the future (Seymour-Smith 1986). I further suggest that aspects of fatalism are located both within collective responses of groups and as cognitive and individualised interpretations of events.

A sense of fatalism was commonly expressed in research participants' accounts of their lives and the risks they faced. This perception of individual or group inability to control outcomes was linked to the structurally poor conditions in which people lived. These structural restraints have been presented above. Here I will focus on the discourse of fatalism itself, illustrating the various shapes in which it was expressed and demonstrating how each related to the experience of individual lack of agency in the face of external agents. Such adoption of a fatalistic discourse was often expressed in statements referring to *bahati mbaya* (literally translated as 'bad luck'), when individuals were questioned about the meaning or cause of a particular negative occurrence. I will explore how perceptions of control and implementation of strategies could often be differentiated by type of individual. Different types of risks were also commonly perceived either to be controllable or inevitable and beyond individual agency.

It was common for people to refer to the power of God in directing their lives and controlling their exposure to future misfortune. In so doing they expressed their view that risk exposure was unavoidable. This was one way of making sense of the otherwise inexplicable frequency of misfortunes. It was also a locally relevant discourse for explaining the misfortune and reinforcing individual lack of culpability. Some individuals demonstrated negative resignation through references to divine agency as a metaphor for powerlessness when faced with what they perceived to be uncontrollable risks. Others' references to divine agency seemed, more positively, to refer to an ultimate divine plan determining outcomes. This latter perspective was demonstrated by women taking part in a FGD in Barakijiji, who explained; '*those are just God's plans, lets say they are God's plans, if he has arranged that this will happen to you, definitely it will just happen … you can't avoid that*'. This view was also evident, unsurprisingly, in Medard's description of his fears for the future. He was a 40 year old AIC pastor, ethnically Sukuma, but who had settled in Barakijiji through his position in the church. He stated:

> *'What gives me worries in life …when I look at the moment that we have and especially mmh, especially in life, how the world goes, even on the employment situation, the way it keeps changing, but also with various diseases that continue to come so rapidly, but also even on governance issues and various political systems, in all those you get a question mark that if God allows me to continue living, what are the things that will happen in future, are there any good things that will happen or what are the worst things that will occur in future?'*
>
> [Medard, Barakijiji]

In contrast, Japhet, a regular at the AIC who had admitted he had previously been an alcoholic and womaniser and who described himself as having been 'saved', expressed his resignation to God's will as a result of his own inability to control social relations :

'God knows what will happen to you, you have a choice but whatever people say or do to you, you cannot know, only God knows so the risk is in God's hands'

[Japhet, Barakijiji]

The role of God in the control of risk was most commonly cited in discussions of famine. For some their inability to control local environmental conditions was expressed through their belief in God. Both Rachel, a 21 year old worker in her father's bar, and Wilfred, a 55 year old polygamous farmer, drew on this type of fatalistic discourse to explain their own inability to control the rains. It should be noted that, in discussion, both stated that they rarely, if ever, attended church:

'*perhaps God has decided it to be so, he may decide that it should not rain completely ... perhaps God has decided not to bring rain this year*'

[Rachel, Barakijiji]

'*because famine ... it has to be no-one. Now there is no-one who can stop that, if God decides that you all have to die, you will all die*'

[Wilfred, Shambajiji]

For others God played a more pivotal role and famine was considered as punishment for sins. Differences between individuals often reflected the different role that religion and church attendance played more generally in their lives. For example, one young, female church regular described the role of God and the passivity of individuals faced with his power over the weather as follows:

'*Just so many, I mean evils have increased so that's why God has decided to give us these things as punishments. Then secondly, these things I think were prophesized* [sic] *to happen because we read them in the Bible even in church there, these things were prophesized that there shall be famine, incurable diseases, a series of earthquakes, wars, so these things have to occur, I mean that's why they should be happening at this time. …There is no way to stop them, I mean they will just occur.'*

[FGD 04/02/09 AYTHFE]

In contrast, a fellow participant in the same FGD who attended church less regularly, disagreed that famine was God's punishment, citing a more rational perspective but still emphasising the same externalisation of agency under God's will:

'*Let's say that it's just weather changes, maybe it's not going to rain this year so foods will be very expensive, but you will try if you used to eat one kilo you will get half a kilo and make porridge on that day and drink and push days ahead, perhaps next year God may help us and grant us with rain, now do you want to tell me that there is no rain in Barakijiji but it rains in Bukoba, you see, so you mean in Bukoba they don't commit evils, but in Bukoba they commit them too, and in Barakijiji they commit them too. So it's just weather changes, it's not that you have to be granted it always, it's God who decides not to grant it to us this year but he may grant it to us next year.'*

[FGD 04/02/09 AYTHFE]

God was also relied upon to control other risks which were commonly considered to be unavoidable and uncontrollable. These included the risk of exposure to jealousy and witchcraft, since these were difficult to control. As Japhet described above, it was

impossible to know what others were truly thinking. Often people employed strategies to encourage God's protection, attributing this to His power. These included George, a 15 year old who wore rosary beads round his neck which glowed in the dark at night when evil was near to ward off attack and Eliza, a 24 year old regular AIC attendee who slept every night with a bible under her pillow to call on God's protection. Such strategies were often secretive since they evidenced a strong belief in witchcraft and if discovered, exposed the practitioner to increased risk. Thus practices were reported to me only after long acquaintance, once trust was established. This protective aspect of religious fervour was also expressed by Tabitha, aged 52, who had been raised and remained a strong SDA Christian. As a child she had experienced an event she attributed to witchcraft but believed she had survived it because of her faith in God. The following quote is somewhat confusing. What is important is not the details of the occurrence but her interpretation of them.

> *'While young I don't know what it was until today … so mother and I went there, just arriving at the water well. I was holding a cooking pot and mother was holding a bucket. There came a strong wind, so mother told me to run, we are dying daughter. Uwi! I asked what's wrong. She said 'I don't know'. So after running a short distance something came and hit the bucket 'paa!'. It was like a stone, so the bucket bent, I haven't forgotten it until today. … So that's why I believe that there are witches …Ee I survived it, really there is a God because I survived it.*'
>
> [Tabitha, Barakijiji]

Exposure to witchcraft could also be controlled by other supernatural agents such as *mizimu* (ancestral spirits) but was also often expressed fatalistically as something beyond the control of the individual. However, strategies were implemented to decrease exposure

to this type of risk through the manipulation of social capital and the exploitation of social networks, which included respect for ancestral relations. Despite such attempts, witchcraft as an expression of the enmity and jealousy of uncontrollable 'others' towards one's own *maendeleo,* was viewed as an inevitable and commonplace risk, often beyond individual control.

Attribution of agency to God was again commonly expressed when individuals discussed illness, accidents and death. These suggested both individual powerlessness and faith in a divine plan. Such occurrences were commonly considered to be ultimately outwith the control of the individual, despite knowledge of biological aetiology and attempts to maintain good health through practices such as hygiene, bednet use, vaccination uptake and child health checks. For example Wilamena, a 35 year old farmer from Shambajiji described the death of her son, not as a result of an inability to act on the part of the parents, or on hospital misdiagnoses of the disease, both of which were contributing factors, but rather and more simplistically, as God's will. She stated '*unfortunately, perhaps God didn't want him to live longer ...you can't oppose fever because those are God's plans*'. Rachel from Barakijiji drew on a similar discourse of fatalism in describing both her mother's death and other diseases over which she felt little control, '*maybe perhaps in thinking about mother's death, I don't know, maybe it's the work of God which did it. I don't know*' and '*there are diseases and accidents that cannot be prevented*'.

Alternative discourses to those ascribing agency to God were expressed during the research. Specifically these were the role of luck or chance in the explanation of misfortunes. Most commonly this concept was expressed through the term *bahati mbaya.* A comprehensive textual analysis highlighted specific contexts in which this term was applied. Though drawing on a fatalistic discourse in expressing the inability to predict or prevent certain negative occurrences, it was differentiated from the role that supernatural

agents could play. In certain situations there was no explanation to be sought through, for example, supernatural or malign agents, and the misfortune could not have been prevented. Thus, use of the term enabled individuals to deny culpability and agency. It was used predominantly in describing the risks of accidents. These included bicycle and road accidents, cooking accidents and specifically with regard to children being burnt, house fires, drowning and being struck by lightening. Of interest, the phrase was also applied frequently to discussions about pregnancy as unplanned and uncontrollable and parental explanations for the death of a child. I suggest that the discourse of fatalism was used in both these cases to disassociate the individual from responsibility and to assert the inexplicability of the event.

7.5 Alternative perspectives on agency

7.5.1 Social patterning of women's agency, differentiated by type of risk

To explore the extent of the relationship between fatalism and social position, I examined all 23 female informant cases. Key indicators of social position selected for the analysis framework were age, village, occupation, church attendance, marital status, ethnicity, type of housing, cattle ownership, frequency of travel, household gender relations and social reputation (see Appendix 8). Individuals were considered to draw on a fatalistic discourse if they attributed the prevention of misfortune and responsibility for risk minimisation, whether for themselves or their children, to external agents, which included both supernatural and human agents. Fatalistic discourses amongst women were then reconsidered according to the type of substantive risk category, rather than individually described specific risks. Categories developed for the framework were economic and livelihood risk, environmental risk such as drought and hunger, health risks in general, risks related to childbirth and number of children, risks related to child rearing and

education, social risks in general such as jealousy and social exclusion and witchcraft in particular.

All 23 women drew to a greater or lesser extent on a discourse of fatalism and this depended on the type of risk described. Conversely, many also demonstrated elements of agency in their approach to other types of risk. This latter finding was expected since even individuals exposed to extreme conditions of vulnerability invested in coping strategies to survive. There were broad patterns linking social position with more or less fatalistic perspectives on risk, although there were always exceptions to prove the rules. Similarly, some risks were more frequently the subject of active preventive agency but none were either always averted or never. Rather, social position and risk type interacted in distinct ways for different individuals dependent on a range of wider social influences.

In general, women who had been exposed to greater levels of education, had travelled more widely either in the past or more recently and thus been exposed to alternative lifestyles and wider frameworks of choice, were less likely to draw on fatalistic discourses. Thus, those who had experienced frequent migration, either due to their own or their partner's work as was the case with Tabitha, Naomi, and Thalia from Barakijiji and Pendo in Shambajiji, or due to a series of unsuccessful marriages and divorce as with Serafina, Loveness and Hope from Barakijiji, exhibited a greater tendency to both agency over their future and in risk management strategies. In contrast, those who had remained dependent on their husbands and had rarely travelled further than the immediate vicinity, and then only to visit relatives for short periods, such as Mariam from Barakijiji and Agnes and Lemmy from Shambajiji, tended towards fatalism.

Other factors associated with a greater degree of agency included higher socio-economic status and level of social engagement, through church, microfinance or social activities

outwith obligatory funeral attendance. Socio-economic status was not only measured through occupation, although those involved in successful income-earning practices outwith agriculture displayed a greater tendency to actively control risk outcomes. Rather, socio-economic status as measured by cattle ownership and type of housing also influenced perceptions of control. Neither of these factors showed a direct association in all cases.

As regards type of risk and extent of reference to a fatalistic discourse, those women who demonstrated some degree of agency towards certain risks but not others, tended to feel a greater sense of control over economic risks, social risks (other than witchcraft) and those related to child rearing and education. Few women described any sense of ultimate agency over witchcraft, although many implemented diverse strategies to minimise their risk exposure. Neither did they express agency over the number of children they bore or the risks of drought and theft. Health risks were most frequently discussed using a fatalistic discourse and very few women talked as if they had responsibility or agency in the prevention of health risks. If health could be influenced it was through treatment after the onset of illness or, in a very few cases, women boiled drinking water, for example to prevent stomach problems. Other hygienic practices such as washing hands and digging latrines were normalised behaviours to the extent that they were not explicitly related to risk prevention nor referred to explicitly during the research.

The following comparison highlights the trends outlined above. Loveness, a Kerewe, and Mariam, a Sukuma, were two women with whom I formed close relationships during the fieldwork. Both were in their mid 30s and had completed primary school. Both had been or were still married and both were living in Barakijiji at the time of the research. In addition both women were regular church attendees, Loveness a seventh day adventist and Mariam, roman catholic. Neither woman owned any cattle, but both were predominantly farmers and had been raised in agricultural environments, although Loveness had recently

become involved in her sister's wood selling business. Finally, both described themselves and were considered by others to possess a positive social reputation and to be involved in the social life of their neighbourhoods and the village more widely, either through church activities or other social networks. Thus on first glance, these women had had similar experiences in their lives. Despite this, Loveness exhibited extreme degrees of agency in her life choices and risk aversion practices whilst Mariam drew to a much greater degree on fatalistic discourse. For example, Loveness chose to have a hysterectomy to avoid further birth complications after her last child. She also chose to leave the land that was in dispute between extended family members to her kin, preferring instead to avoid the risk of witchcraft attack. At home in Geita she practised multi-cropping strategies to avoid the risk of hunger during the ensuing season and struggled hard to educate and support her children for the future. In contrast, Mariam felt that education was out of her control and though she described her desire for her children to have a '*good future*' where they would be '*successful'* she did nothing to actively achieve this. She also felt much more exposed to the vagaries of the weather and, perhaps constrained by time because her fields were some distance from her home, usually only planted single crops. The only area in which she described active risk aversion was in social relations to ensure reciprocity in times of household difficulties. Finally, in common, both women were extremely fatalistic in their discourse on health risks. Mariam described illness as in '*God's plans*' whilst Loveness stated explicitly, '*you cannot avoid them* [diseases]*, how can you avoid them?*'

So what differentiated these two women in their perceptions of the future and their own capacity to influence it? Loveness was divorced and independent, having left her three children with her mother in Geita when she migrated to Barakijiji. There she became involved in alternative income-earning strategies, lived in a corrugated iron roof house and was able to travel frequently between Ukerewe, Mwanza, Geita and Barakijiji. Since she had not been born in Barakijiji, she was less exposed to the close-knit social relations by

which Mariam often felt constrained. Mariam had been a farmer most of her life and though she had travelled a little while younger to visit relatives, had been limited in her life choices. She was also married and cited her husband as the decision-maker in the household. Mariam, like other women in this sub-sample who had rarely travelled, was more subject to constraints and local expectations from her embeddedness within social networks .She may have considered alternative approaches to life but, living under the close scrutiny of her neighbours, she may have feared their reactions to her attempts to better herself leaving her more exposed to social risks. Loveness, again similarly to other women who had travelled more widely either for their own or their husband's work and had settled in Barakijiji from elsewhere, whether married now or single and in general regardless of current socio-economic status, tended to exhibit greater agency and consciousness of planning for the future. Thus, whilst I suggested that education and socio-economic level affected the extent to which an individual drew on a fatalistic discourse, the findings additionally showed that the predominant factors were migration and exposure to alternative life choices and, concomitantly, constraints from social position within the community, not social engagement or ability to manipulate social capital.

Further evidence for the role of migration and exposure to alternative life choices is provided through the examples of Patience and Thalia. During the research they were both living in similar socio-economically vulnerable circumstances in Barakijiji. Both had failed to complete primary school, were divorced, looked after young grandchildren, were heavily engaged in social networks and had good reputations. However, despite this, they expressed markedly different approaches to controlling risk in their lives. Patience felt particularly vulnerable since her children all lived elsewhere but did little to prevent risk. In describing the future she relinquished control to God:

'In fact I don't even think about them [future misfortunes]*, if they come they will just come, even if you think so much about them, if such a thing is not planned for you then it can't. Even about my children, to think that perhaps this, you may think a lot about the children and still they get diseases, it is just good to tell God that you deal with my children ... He will protect them'.*

[Patience, Barakijiji]

In contrast, Thalia, although faced with similar vulnerability since she had no adult relatives living in the immediate vicinity, expressed her belief that:

'God helps you depending on how you help yourself, you cannot expect God to do all the work whilst you sit back and do nothing. He can only help if you are struggling yourself'

[Thalia, Barakijiji]

Outwardly, both their lives had been similar since they had both experienced similar misfortunes and were now responsible for the care of grandchildren. In fact, the only factors that distinguished the two women were that Thalia had travelled with her husband in the past and Patience had been raised in Barakijiji.

Evidence suggested that many women were initiated into a migratory pattern through systems of patrilocality on marriage. However, those who remained married were often restricted in future opportunities for travel. These women became heavily involved in consanguineal kinship systems which proved both beneficial as reliable social networks and problematic if relations turned sour. If women separated from their husbands, they would often be forced to relocate, either to return to their parental home or to seek a living elsewhere. This forced relocation frequently led to future, more voluntary migratory

patterns, either seeking income opportunities or to be with another partner. Habituation to the opportunities (and risks) of travel encouraged such women to adopt this more readily as a strategy to avoid risk, and concurrently facilitated perceptions of their own agency in wider risk avoidance.

7.5.2 Strategies of opportunistic risk taking

I have shown how villagers have various strategies, such as microfinance groups or developing social capital, to minimise those risks that they think can be influenced. However, for some, the environment necessitates a certain amount of risk taking for survival. This was often described as *kubahatisha* (to take a chance). Such attitudes to risk taking have been described as an alternative risk framing where '*choice and risk were associated with the opportunity to gain something that was desired, albeit with the possibility that in striving for a desired goal things may also go wrong*' (Henwood, Pidgeon *et al*. 2008). This attitude was common in approaches to agricultural livelihoods amongst research participants. Since subsistence farming was socially and culturally embedded in Sukuma identity even the landless would borrow or hire land according to particular social relations, to grow some form of subsistence crops for household consumption. Moreover, children from households whose principal source of income was independent of farming were taught from an early age the value of cultivation. In fact, whilst many parents stated that they wanted their children to have a financially secure future in business, without exception, they encouraged these same children to learn the techniques of farming, perhaps pragmatically aware that this was their most likely future. Both Mariam from Barakijiji and Wilamena from Shambajiji described the role of risk taking in general farming practices, despite strategies implemented to control the element of risk. Pendo, a 47 year old farmer from Shambajiji, explained in more detail that maize

was a crop which was particularly risky, especially in years of drought. The Swahili is included in the text to highlight the use of the term *kubahatisha*:

> *'Na mahindi pia huwaga tunalima. Lakini mahindi tunalima kwa ku…kama mwaka huu ni ya kubahatisha miaka mingine tunalima kwa kutegemea kwa sababu labda mvua za vuli zitakuwepo.*
> *We plant maize too, but we plant maize for … like this year it's a game of chance, in other years we plant it expecting to harvest it because perhaps there are first rains.'*
> [Pendo, Shambajiji]

The risk was considered worthwhile since sufficient rains would bring an early crop of maize. Although maize was increasingly popular in both field sites as a subsistence crop, millet, sorghum and cassava were all considered more reliable. Traditionally, the agricultural system of the Sukuma was specialised in order to minimise risk. Staple crops of millet and sorghum were durable and could withstand drought, but slowly maize and rice began to replace these in the area. Both of these are more dependent on regular and predictable rainfall and thus riskier in an unpredictable environment (Iliffe 1979). Despite this, the risk was normalised. Maize had become a staple of *ugali* (stiff porridge) along with cassava and rice held increased social value as indicative of wealth and for festivals. Rice was also a profitable cash crop and maize would occasionally be sold if the harvest was particularly successful. Thus agriculture was recognised as a risky livelihood strategy in general and risk taking a normalised aspect of agricultural dependence.

For a few individuals, the desire to improve their future had encouraged them to become more than agents in the control of risk exposure and to actively seek risk in the belief that this might lead to a better future. In some of these instances, they were prospectively

conscious of the risks being taken and described these in detail. James, a 49 year old farmer from Shambajiji, provided one example of this approach to risk taking to plan for a better future through the education of his children. He sent his eldest son to secondary school some distance from his home. He also invested any spare income in extra tuition to ensure his son's success. However, in doing so he was aware of the risk of his inability to control the daily behaviour of his son, '*because he lives far from home, so you don't know what he does there*' and the danger of his falling into bad company. He also described the risk of his investment in the future through education to the detriment of the current lifestyle of his family:

> '*I spent a lot of money on tuition issues, he has passed … I mean I am still waiting to build perhaps the house foundation this year and start erecting it next year … so that in form four, he can do what, he can attend more tuition … after he finishes it's when I will see some light again*'.
>
> [James, Shambajiji]

His compound contained three houses, all of which were constructed of mud bricks and thatch and he spent his time engaged in community development schemes and farming his local fields. Any spare cash was saved to invest in the education of his children. James did not explain, either during his interview, or in the many encounters we had during the fieldwork, why he prioritised education and felt the need to take risks for the future. However, and in reference to my suggestion above that agency was related to wider life experience, James had spent a long period of his life travelling daily to work in a factory in Mwanza . Due to his own lack of education he was unable to progress within the company and when the company was taken over, he lost his position and was never able to regain it. It was perhaps this experience that encouraged him to invest so much in the education of

his children, since in most other respects he was a 'typical' small-scale subsistence farmer in Shambajiji.

This exposure to alternative lifestyles was a way of shaping the future and affected perceptions of agency. Those who pursued opportunities for alternative income-earning strategies outwith the constraints of a combination of cash and subsistence crop farming with or without small-scale livestock management - in other words, 'lifestyles deemed by research participants to be traditional and limited' - also manifested greater agency in shaping their own future. Certainly, there was evidence that such opportunities were idealised and sought after as a route away from '*kishamba'* towards an emically defined *kisasa*. For example, male youth in Shambajiji suggested that 'business' was one such route:

> '*Because people in the past didn't know business, but business perhaps can give you a modern life because you will deal with your business and finally you get money and build a house, so you will do away with traditional life.'*
> [FGD 21/02/06 AYTHMAMA]

Moreover the extent of diversity in alternative income-earning strategies pursued within both field sites, but more heavily in Barakijiji, was further evidence of the desirability of alternatives to holistic dependence on agriculture. There were a total of 55 alternative income earning strategies recorded during the participant observation period (see Table 4.2). These ranged from undefined business activities, such as import and export of goods at the border with Kenya, to service provision, such as bicycle or radio repair, to market stall owners and small restaurants selling cooked food on the street. The majority of individuals who were involved in alternatives in the field sites also continued to rely to a greater or lesser extent on farming, and thus retained some security for subsistence

consumption. This, however, was not the case if individuals migrated to an urban area. In these instances, they were taking a greater risk in abandoning the security of additional household provision through farming, in the pursuance of perceived increased benefits in enhanced income-earning opportunities.

7.6 Conclusions

In the 'risk society' of late or reflexive modernity (Beck 1992), Giddens has suggested that there has been a change in the way in which time is viewed. '*Instead of the past determining the present, because of the significance of risk in late modernity, the future, as envisaged in risk scenarios, determines decisions made in the present. For this reason self-identity becomes reflexively organised and individuals are forced to negotiate their own lifestyle choices*' (p.5) (Caplan 2000). The empirical evidence from this research suggests that the way people interpret the past affects their perspective towards the future. Giddens described this as indicative of cultures where '*traditional modes of practice are dominant*' (p.48) (Giddens 1991). Whilst Barakijiji society cannot be defined as 'late modern', I suggest that it is a society in flux, combining the ideals of *kisasa* with those of tradition. In the field sites, concepts of both the past and the future inform perceptions of risk. This was evident from the respective roles of misfortune and risk. Traditions helped to shape concepts of *kisasa* and *maendeleo* whilst new forms of tradition were being re-invented (Hobsbawn and Ranger 1983) and redefined as *kisasa*.

Similarly, Bourdieu described the experience of time for the Algerian peasantry, dependent solely on subsistence agriculture, as part of a continuing and repetitive world of experience, one of social reproduction. He stated that '*potentialities, as distinct from possibilities, are not apprehended as arising out of an infinite number of possibilities equally able to come about, since as they are grasped, they are just as much present as the*

actual present, directly perceived' (Bourdieu 1973). He described the entry into the money economy and migration to urban environments as changing this perspective between past, present and future. Time becomes something which can be wasted, work becomes segregating and time spent doing nothing becomes time wasted. This in turn leads to '*an obsession with the morrow, a fascination with the immediate*' (p.13) (Bourdieu 1973; Jenkins 1992). The evidence from this chapter has demonstrated this change in approaches to the past, future and present. Those with a broader worldview were often defined as possessing a *kisasa* lifestyle, exposed to opportunities through migration and income. They demonstrated a greater awareness of their own ability to influence risk and shape their own future. However, even those with limited alternatives within a restricted socio-economic, largely agricultural environment, were risk conscious and able to define explicit strategies to avert risks they deemed both salient and controllable. In this case, explicitly recognised strategies were largely embedded within social relations. In this way, the interpretation of misfortune and the continuing centrality of albeit re-interpreted, traditions, combined with awareness of ideals of *kisasa*, influenced perceptions of future risk. The nature of this influence, however, was also dependent on type of risk. The following chapter will explore how the dynamic interplay of tradition and modernity and the dominance of the social presented in Chapter 6, specifically affected perceptions of health risks.

Chapter 8: Situating health in the risk landscape

8.1 Health and illness

The overall research rationale was to situate perceptions of health risks within the context of other risks and assess the relevance of meta-theories of risk perception to the particular context of NW Tanzania. I have described in Chapter 5 how different methods generate different data on which risks are considered salient. In Chapter 6 I highlighted the dominance of the social context in both risk perception and management strategies and examined the discourses that are commonly drawn on to interpret risk. Chapter 7 re-examined risk as a future-oriented perspective and juxtaposed this with other approaches to understanding negative events, such as interpretations of misfortune. I examined the ways in which individuals exerted agency or were inhibited from this by structural and discursive factors which dominated their worldviews. This chapter will review each of these arguments but with a specific focus on health risks and how they are embedded within this broader risk landscape.

Specifically, Section 8.2 documents emic typologies of illness developed from the data. This classification system provides a framework of explanatory terms for particular experiences of illness applied in the rest of the chapter. I describe adverse health experiences as illness rather than disease (Kleinman 1973; Eisenberg 1977; Good 1997 (1994); Pool and Geissler 2005) since the data demonstrated the possibilities of using the subjective experience of ill health as a heuristic device to explore interpretations of risk perception. Section 8.3 has a twofold purpose. First, to explore priorities for health risks and situate these within the wider social discourses presented in Chapter 6, such as the relevance of social position to individual prioritisation of specific health risks. Second, I explore treatment seeking behaviour within a pluralistic, and often syncretic, healthcare

context. In so doing I show how individuals control health risks through decisions made over treatment rather than in prevention, and how these are constrained by unequal power relations between patient and provider. Returning to the perception of health risks more broadly in Section 8.4, the socially embedded nature of perceptions of health risks is highlighted through examples of perceived illness aetiology and in a comparative study of the relative salience of health and social risks. Since many individuals demonstrated agency in the control of certain risks, Section 8.5 explores how people shape health through the adoption of preventive strategies which may be either routinised and subconscious or specific and targeted. Perceptions of control are contrasted here with fatalistic discourses which influence perceived and actual capacity to shape health. Finally section 8.6 draws conclusions about the role of health within the broader risk landscape.

8.2 Emic typologies of illness

Emic frameworks for understanding and classifying illness often differ from diagnostic disease categories common in the West. They may also overlap since biomedical categories may be re-interpreted as emic terms. Given such variation, it makes sense to use the term 'illness' rather than 'disease' and acknowledge illness as experienced within particular socio-cultural contexts (Eisenberg 1977; Good 1997 (1994)). In Barakijiji and Shambajiji illness was frequently classified by symptom identification and description or by suspected aetiology. For instance, when I asked Pendo, a farmer from Shambajiji, in an IDI '*what disease was it?*' that killed her mother, she replied '*she was suffering from the stomach and legs*'. When explicit biomedical terms defining a disease were applied, further investigation sometimes highlighted a disparity in meaning between scientific and lay definitions. For instance, *homa ya manjano* or ***ngubilu*** is conventionally translated as yellow fever, a disease that, according to the World Health Organisation, has not been seen in Tanzania since before 1985 (WHO 2000). Amongst the lay population in the field sites,

however, the term *homa ya manjano* continued to be used to describe illnesses presenting with yellowing of the urine and palms of the hands, eyes and face. This was often described as originating in severe malaria but could only be cured through traditional medicine. The following excerpt is taken from fieldnotes and describes the illness, related to me informally, of Serafina from Barakijiji.

> *She went to hospital when sick and was told she had a malaria count of five and was given a drip, injections and medicine. This seemed to work but then her stomach started to hurt her and her eyes turned yellow as did her urine. She was told by her friends that she had yellow fever, manjano, and that she should seek dawa za kienyeji to be cured. This she did without visiting a mganga wa kienyeji.*
> [Serafina, Barakijiji]

In fact, some stated that if an injection, such as quinine, was given, the patient would die. For example, a male youth in Barakijiji stated:

> *'He had yellow fever. You know we are advised that this cannot be treated in hospital. You have to go and see the elders who will find the medicine for you and the patient will recover'*
> [FGD 28/01/06 AYTHMA]

This was believed to have been the cause of many deaths, especially when symptoms were misdiagnosed as malaria and the patient was taken to hospital for treatment. Wilamena, a farmer, described the death of her relative:

> *Wilamena: I haven't gone to the funeral but they said that she got yellow fever.*
> *ND: Yellow fever.*

Wilamena: *They took her for an injection.*

ND: *To hospital?*

Wilamena: *Ee. Now they say that it doesn't cope with injections, once you are injected then that's the end.*

[Wilamena, Shambajiji]

Given these disparities between professional and lay accounts of illness the following Table 8.1 presents a typology of each illness locally defined. These are sub-categorised into three types: infectious or chronic diseases which are defined biomedically, illnesses with no biomedical equivalent and those defined in the research by symptoms. Each illness, presented in the vernacular, is then followed, where possible, by an approximate biomedical term, which most overlapped in meaning. I then describe the illness, explaining symptoms and perceived aetiology, and finally provide further explanation and situate the illness within the broader socio-historical context where possible. All the data derives from non-professionals, i.e. the lay population resident in the two field sites and not from data obtained from the ward health centre, even though many of the terms were interpreted indistinguishably. Since the illnesses described are those raised by informants during interviews and participant observation they do not represent an exhaustive list of local emically defined illnesses.

Table 8.1: Emic illness classifications for Barakijiji Ward

Illness described in Swahili (Sukuma)	Approximate biomedical term	Description of symptoms	Perceptions of aetiology	Broader context	Source of data
Infectious/chronic diseases with biomedical similarities					
Uti wa mgongo	Meningitis			Epidemic disease, recognised as cause of disability such as deafness and dumbness. Most recent local outbreak in 1994	Group interviews with local elders
*Surua (**Ndubi**)*	Measles			Since government brought vaccine, mortality and morbidity greatly decreased	Group interviews with local elders 2 IDIs
*Ukoma(**Mbiji**)*	Leprosy			Considered inheritable, sufferers used to be segregated, stigma still exists towards disease	Group interviews with local elders IDIs
Ndui	Smallpox			Eradicated by vaccine brought by government	Group interviews with local elders PO data
Kipindupindu	Cholera		Associated with hygiene and flies, some associate symptoms with community targeted witchcraft and cite existence of 2 types of cholera.	Most recent outbreak in 1992	Group interviews with local elders PO data 2 IDIs 2 FGDs
Ukimwi (***Bukimwi***)	HIV/AIDS			Term used for both sero-status and syndrome	PO data 9 FGDs 35 IDIs
Kaswende	Syphilis	Symptom presentation often unclear	General understanding is that symptoms can be treated using biomedicine but underlying cause needs to be addressed with traditional cures		4 IDIs
Kasonono	Gonorrhea	Symptom presentation often unclear	Recognised as sexually transmitted		3 IDIs

Illness described in Swahili (Sukuma)	Approximate biomedical term	Description of symptoms	Perceptions of aetiology	Broader context	Source of data
Magonjwa ya zinaa ***(busatu wa zinaa)***	Generic STI	Non-specific		Term sometimes used to include AIDS	PO data 7 IDIs
Mafua ya ndege	Bird flu			Mentioned only in abstract, recognisable media influence	PO data 1 IDI
Malaria/homa ya malaria	Malaria		Believed to be unavoidable	Normalised disease often just called *homa*, prevention in use of mosquito nets, mostly described through early treatment on recognition of symptoms	PO data 2 FGDs 18 IDIs
Kifua kikuu	TB	Recognised when individual starts to cough blood	Rarely linked to HIV Associated with environment: by dust from tailoring work or in roasting fish using oil.		PO data 1 FGD 3 IDIs
(***Mabambalu***)	Chlamydia trachomatis				1 FGD
Ugonjwa wa kichocho/kichocho cha tumbo	Schistosomiasis	Symptoms not easily recognised or attributable to specific disease	Recognised physical cause of disease and use of lake water		As dirty water in 33 IDIs PO data 5 FGDs
Minyoo	Worms	Unspecific			3 IDIs
Safura	Hookworm			Considered by some to be a type of *mchango* (see below)	Linked to unclean surroundings in 10 IDIs PO data
Mafua	Cold/flu				Linked to general health in 4 IDIs
Nimonia	Pneumonia				1 IDI PO data
Magonjwa ya macho	Eye diseases	Undefined and non-specific			PO data
Kisukari	Diabetes			Discussed as a global disease	PO data 2 FGDs
Presha	High blood pressure			Commonly ascribed cause of death. Believed curable through traditional and biomedicine	PO data
Magonjwa ya ini ***(Matima gabola)***	Liver diseases		Sometimes linked to alcohol abuse		PO data

Illness described in Swahili (Sukuma)	Approximate biomedical term	Description of symptoms	Perceptions of aetiology	Broader context	Source of data
Magonjwa ya moyo	Heart diseases				PO data
Kansa	Cancer				PO data 1 IDI
Asma	Asthma				PO data
Mang'ondi	Haemorrhoids				PO data
Illnesses with no biomedical equivalent					
Mchango (***nzoka***)	'Intestinal worms'	Can cause abortions in pregnant women who need traditional medicine to prevent neonatal mortality. General symptoms ranged from high fevers, stomach cramps and convulsions to paralysis & dementia.	Believed to be inheritable but also caused by male or female infidelity	Distinguished by their invisibility to biomedical tests, can be diagnosed through divination. Injections to treat symptoms through biomedicine believed to directly result in death.	6 FGDs PO data 16 IDIs
Types					
(nzoka ya ipungu)		Worms under the scalp of young children, can affect sight or cause convulsions, without traditional medicine, child may die.	Can be caused by the breastfeeding child's exposure to the cry of a particular bird flying overhead	Preventable through child's wearing traditional talisman sold by healers	PO data 1 FGD
(nzoka ya ihuji)		Untreatable since not known until baby dies during delivery.	Hits a newborn on the head when being delivered. Caused by woman's infidelity and mixing sperm, especially when pregnant.	Only affects female children	PO data 1 FGD 1 IDI
(nzoka ya buhale)		Causes infertility		Only affects male children	PO data 1 FGD
ngili ***(nzoka ya bagosha)***		Similar to hernia			PO data 1 FGD
(nzoka ya bashashi)		Causes convulsions which becomes chronic and the child dies			PO data 1 FGD

Illness described in Swahili (Sukuma)	Approximate biomedical term	Description of symptoms	Perceptions of aetiology	Broader context	Source of data
Kinyesi		Sores & difficulties walking. Cured by traditional medicine	Caused by walking on excrement		PO data 1 FGD 4 IDIs
Maziwa machafu ***(mabeleka ya bubi)***	Dirty breast milk	Only affects breastfeeding babies, causes diarrhoea & thinning	Mothers believed to be predisposed to problem		PO data 1 IDI
Illnesses defined by symptoms					
Kukosa damu or *upungufu wa damu*	Anaemia/lack of blood				PO data 2 IDIs
Homa/homa kali	Fever/strong fever		If a child exhibits fever alone then treatment is sought through biomedicine If accompanied by diarrhoea and vomiting the cause is less obvious and either biomedical or traditional treatment may be sought depending on wider social circumstances ranging from issues of access and cost to peer advice and social relations	Often used when describing malaria but can also describe other types of fever or indefinable illness.	PO data 2 FGDs As malaria 19 IDIs
Ugonjwa wa miguu/kuvimba miguu	Disease of the legs		Often attributed to witchcraft, usually through *mitego* ('targeted traps')	Cured using traditional medicine	PO data 10 IDIs As witchcraft 30 IDIs
Kupooza mikono na miguu	Paralysis of the arms and legs	As above			PO data As witchcraft 30 IDIs
Homa za manjano/manjano ***(ngubilo)***	Officially 'yellow fever'			Symptoms can be treated with biomedicine but traditional medicine is considered necessary 'to urinate and neutralise the disease'. After hospital treatment for malaria, *manjano* may remain & will usually be treated with traditional medicine	PO data 2 FGDs 6 IDIs

Illness described in Swahili (Sukuma)	Approximate biomedical term	Description of symptoms	Perceptions of aetiology	Broader context	Source of data
Kuharisha	Diarrhoea		Three common causes: ***nyakwela*** (as a result of *maziwa machafu*), amoeba (which is treated with biomedicine) and witchcraft (often suspected if no cure for other treatments)		PO data 5 FGDs 5 IDIs
Kuharisha damu	Diarrhoea with blood			Accounts suggest recent outbreak of dysentery in 1994	Group interviews with local elders PO data
Kutapika	Vomiting		Associated with witchcraft especially if other cause cannot be found		PO data 5 IDIs
Magonjwa ya homa za matumbo		Implication is of different types of stomach fevers, these could include typhoid, amoeba and other undefined stomach ailments			PO data
Kichaa	Madness/mental illness		Often attributed to witchcraft. Cause also associated with *mchango* or excessive alcohol or drug abuse	Usually treated by traditional healers	PO data 11 IDIs
Kuvimba tumbo /kujaa tumbo	Swollen stomach		Often associated with witchcraft especially if accompanied by headaches.	May visit biomedical practitioner where stomach is drained but swelling returns and patient commonly dies which is then attributed to witchcraft	PO data 3 FGDs 5 IDIs
Kifafa/degedege	Convulsions/epilepsy		Often attributed to *mchango*, treated with traditional medicine	Other research suggests link to malaria (Muela, Ribera *et al*. 2002; Kamat 2006) though this was not found here	PO data 2 FGDs 2 IDIs
Kifua	Cough				PO data

8.3 Health priorities and disparities

8.3.1 Hierarchies of health risks: does social position affect health prioritisation?

The table presented above demonstrates the wide range of illnesses experienced and recognised in both field sites. Illness was an expected component of daily life and because of its commonality, was often normalised. When questioned, many individuals expressed the inevitability of suffering. For certain diseases, people rarely felt a need to understand why misfortune had befallen them rather than others, since they also witnessed regular health misfortunes amongst neighbours. James, a farmer, described this when discussing the death of his child from malaria:

> *'I didn't complain when that child died, I didn't complain because these are ordinary incidents to human beings I didn't complain … it was not only my child who died, just many children die … that is why I didn't complain.'*
> [James, Shambajiji]

Given this, risk aversion strategies to minimise risks were also normalised, so much so that they often did not form integral components of risk discourse. Despite this, the research identified a clear hierarchy of perceived threats to health which was influenced by social position. Previously in Chapter 6 I showed how an individual's social position and biography, in terms of socio-economic position, gender, migration and partner types, affected the types of risk considered salient. This was dynamic. In chapter 7 I re-examined social position in terms of its association with agency. There I focused on women in particular and showed how exposure to alternative ways of life through migration affected perceptions of agency in the control of risk. This broader scope of possibilities and life choices was also related to socio-economic position and education of self or partner. Thus

the following section examines the relationship between social position and health risks with a specific focus on gender and socio-economic position, taking into account exposure to alternative life choices, largely through migration. The following case studies also highlight the contingent nature of priorities for health risks.

John was a 29 year old fisherman who lived with his family in Barakijiji but travelled daily to Samakijiji, the nearest fishing port on the lake. He had built a large cement block house and used a generator for electricity. He had three children but also lived with extended family. He implied that he felt pressure to provide for these people since he was known in his family as successful and feared jealousy if he failed to share his success. He stated '*so definitely they will just live there, it's better to live with people well, they can come and go because other people like to say, " let me go to so and so's place and live there*". Although he travelled daily outside of Barakijiji and had been further afield a few times, his social environment was centred in the two villages. Since he spent long periods of time in two environments, he possessed two different social identities; that of a father and husband and that of a fisherman and youth. Given this, John prioritised the risk of HIV. He was one amongst only three men to do so out of 17 whose risk perceptions were analysed in detail. He felt he was exposed to this risk because he spent time away from his wife in high risk environments and admitted the inevitability of both his and her infidelity. He expected his wife to be unfaithful '*You can't know it because, because we Africans if someone is given some money she just takes it, she just takes it* [laughter]'. He described his own lack of fidelity but stated that he used condoms frequently when with other women. He laughed when it was suggested he could also use them at home. Despite his own behaviour he felt his biggest risk of exposure to infection was through his wife, since he rarely slept at home. This may have encouraged her to seek other partners. He felt this was more likely if they offered her money, despite his relative affluence.

John had been raised close to the lake and had been fishing and swimming from an early age. He described a childhood illness experiencing diarrhoea with blood, for which he was hospitalised for two weeks. He was not told by either his parents or the hospital what disease he had been suffering, although in retrospect, he was aware that it had been schistosomiasis. He was aware of the risk of reoccurrence, given the nature of his work, and that preventive treatment was available, but he did not exploit this. He was not clear in his narrative why he failed to actively prevent the disease since he also claimed that he drank boiled water at home.

Of interest in John's case, and perhaps in explanation of his failure to engage with the risks he was evidently aware of, was the duality of his life. Thus, at home he drank boiled water and didn't use condoms in his role as father and husband. In this way he protected himself from one type of risk and exposed himself to another. In contrast, at work and at play in Samakijiji, his behaviour was protective towards HIV risk but exposed to water-borne disease risk. I suggest that for John, both types of risk behaviour were deeply rooted in accepted social norms which condoned condom use only outside of the home (Lees, Desmond *et al*. Accepted), making both his risk awareness and risk behaviour contingent on the wider social context in which he experienced health risks. John's ability to fulfil two different social roles, and the consequences for this on his risk perceptions and behaviour, was facilitated by his masculinity and occupation as a fisherman. Thus it is evident that his respective social position in both sites was key to his perceptions of health risk.

John was of considerably higher socio-economic status than many other men in the field sites. Wilfred's lifestyle, on the other hand, reflected that of many men in the community. He was a 55 year old farmer from Shambajiji whose livelihood was primarily based on subsistence agriculture but who was involved to some extent in the fishing business. He travelled irregularly between the lake shore and the village to buy and sell fish, although he

did not practice fishing himself. Like John, Wilfred described himself as a Catholic but attended church very irregularly. He was married polygamously, both women living in separate houses on his compound. Thus, Wilfred also fulfilled multiple social roles, as husband, father and grandfather in one home and as husband to a young wife in the other. In reality Wilfred chose to sleep most nights with his younger second wife with whom he had no children, although she had her own from a previous relationship. His first wife lived in the larger house with some of their six children. Wilfred chose to spend mealtimes alternately between houses and, in his own words, often benefited from two meals as the women competed to cook for him, having originally tried to cook together. His two houses were constructed with mud bricks and thatch and, although he had land and social esteem as a member of one of the oldest families in Shambajiji, he was economically extremely poor.

Wilfred discussed his second wife's *mchango* as '*nzoka ya ihuji*' (see table 8.1 for explanation), which he believed stemmed from her previous sexual life and which made it difficult for her to conceive with him. He blamed this illness for the death of their first child, but was keen to emphasise that he was not to blame. Whilst aware of sexual transmission of certain diseases, Wilfred only referred to HIV as an abstract risk when asked directly. He associated this risk with commercial sex and perceived himself to be at no risk, despite travel to the lake shore. Similarly to John, Wilfred had also experienced schistosomiasis as a child; he described the experience as '*my penis being eaten up with bilharzia*'. This childhood memory had remained with him and he was acutely aware of the risk of schistosomiasis. However, despite his fear, Wilfred did nothing to prevent his re-infection or to protect his children. In fact, although Wilfred referred abstractly to health risks such as malaria and vomiting in children, he failed to prioritise health risks in his worldview. Instead he referred much more frequently to environmental risks such as lack of rains and consequent hunger and to social risks since his social popularity was

important to him. I suggest here that it was Wilfred's lower socio-economic status that decreased the salience of health risks in relation to these others. Social reputation was prioritised in his lifestyle choices such as in taking a second wife, and in his involvement with farming groups. Economic vulnerability led him to seek solutions to avert the risk of hunger. Thus he focused risk prevention on these areas, both of which reduced his exposure to socio-economic vulnerability. Since he viewed health problems as routine and regularly witnessed similar events, '*even amongst my neighbours … such incidents are happening'*, he considered them socially equalising since he felt all within the same environment were similarly exposed and illness was an unavoidable burden in everyday life.

I have demonstrated, using these two examples, the interplay between social position and the perception of health risks amongst men. I have shown how the salience of certain health risks may be informed by the wider social environment in which health is experienced. Indeed Wilfred's more vulnerable economic position meant he was more concerned about social and economic risks than health. John's wealth provided him with the ability to prevent health risks at home but simultaneously depended on his demonstrating certain accepted norms of behaviour which increased his risk exposure during his working life.

Given differing priorities of men and women and the social position of women as carers for the sick, how far does socio-economic status affect the health priorities of women? Thalia was a 51 year old farmer who, like Wilfred, was involved in buying and selling fish to supplement her income. Like Wilfred, she earned little from this source, just enough to pay the rent on her one roomed house of burnt bricks and corrugated iron in the centre of Barakijiji. There she lived with two grandchildren and her mother, having experienced two divorces. She liked where she lived since it was close to the Mosque which she

attended regularly and where she also used the toilet facilities. Her toilet had collapsed and she was waiting for the landlord to construct a new one. Although poor, Thalia was a regular contributor to government development work and a member of political and religious groups. She had decided not to become involved in microfinance schemes, however, since she had no disposable income to contribute weekly. Despite her difficult economic circumstances, Thalia strove to maintain certain standards in her daily life. Having suffered several miscarriages, she had given birth to four children but two had died. She had taken her grandchildren from her daughter who had also lost several children. She claimed this was due to poor nutrition, but her daughter and in-laws blamed witchcraft. In this action, Thalia demonstrated her awareness of the relationship between health and lifestyle and this attitude extended into her perceptions of other risks.

Thalia's son-in-law had died of AIDS but she thought that her daughter had not been infected since she had given birth to five healthy children since then. She also claimed that her daughter had tested negative. Given this, and knowledge of others who had died, Thalia highlighted HIV as a salient risk and took active measures to protect herself. This she achieved through abstinence and a refusal to re-marry following her second divorce stating '*what would I be looking for in re-marrying if it's not to chase risk? So I decided to leave it*'. Heightened risk awareness for Thalia also translated into action in the prevention of water-borne diseases. Since her involvement in the fishing business Thalia had suffered from stomach problems. After consulting local professionals at the health centre, she attributed this to the consumption of dirty water. At the time of the research Thalia ensured she only drank boiled water at home. She only felt able to control this risk in her domestic life. At work her need to earn money took priority. Finally, Thalia, who had lost two of her own children and several young grandchildren, prioritised risk prevention towards her grandchildren. She connected nutritional status with childhood ill-health and struggled to provide adequate nutrition.

Although Thalia was living in strained socio-economic circumstances she had previously been better off and had travelled more widely than many of her neighbours in Barakijiji. Her two divorces, however, had left her with little except her knowledge. It seems likely that her past experiences, combined with her experiences of child rearing, had informed her risk awareness and attempts to control health through preventive behaviour in hygiene and nutrition. As both economically poor and a migrant to Barakijiji, she was less constrained by social responsibilities than either the better off, or indigenous villagers. Although she participated in some social groups, she was able to focus on the prevention of health risks in her immediate home environment. However, similarly to John, her risk aversion was not translated to her working life when she was unable to prevent potential stomach problems through exposure to health risks such as schistosomiasis or hookworm from the lake.

A working life distinct from the home environment was not Wilamena's experience. Rather, as a 35 year old mother and farmer in Shambajiji, she lived and worked at home. Her social life was wholly experienced within the same village where she had been raised and had met her husband, with whom she had had eight children, losing only one. She benefited from a more stable family life and, owning land as well as cattle, she lived in less difficult socio-economic circumstances than Thalia and although better off than Wilfred, relied primarily on subsistence farming. However, given Wilamena's dominant social position in the village as wife of the village chairman at the time of the research, it was not surprising that many of the risks she emphasised were linked to social relations. Similarly, given the family's dependence on the land and cattle she emphasised, like Wilfred, risks such as the lack of rains and hunger.

Wilamena had also experienced frequent illness episodes within the family and had lost one child to what she described as *mchango*. At the time of the research two of the younger children were suffering from unresolved health problems, which were neither diagnosed nor treated. Although health problems were a constant burden to family life Wilamena did not attempt to prevent them, displaying a similar sense of inevitability as Wilfred. In fact, in considering malaria, Wilamena stated that '*you can't oppose fever because those are God's plans*'. This failure to engage with health risks was common to many individuals dependent on farming in Shambajiji. Wilamena's example suggests that higher socio-economic status is less relevant to the perception of health risks for women than it is for men. Wilamena was more economically secure than Thalia but did little to avoid health risks. In contrast Thalia, who was an economic migrant to Barakijiji and less financially secure, prioritised health risks in her description of daily life.

The four case studies presented suggest that degrees of socio-economic vulnerability influenced health risk awareness for men more than women. Risk perceptions for all informants were charted against socio-economic status, defined by type of house construction, ownership of house, occupation and cattle possession, where data were available. Taking one example of the risks of dirty water, all men of higher socio-economic status (n=3) highlighted this as a cause of illness. Those defined as low or medium socio-economic status (n=12), on the other hand, rarely referred to this problem. Those who did had either experienced health problems through consumption of dirty water such as Wilfred described above or they possessed experience from outwith the field sites, generally through their occupation, such as James, a farmer from Shambajiji. In contrast, of four women defined as of high socio-economic status, only two mentioned hygiene or dirty water as a risk, whilst this was also mentioned by three of the eight women defined as low socio-economic status.

The examples also show the contingent nature of this relationship between health risks and socio-economic status on differing social roles in home and work environments. This was reflected in the example of Thalia who distinguished between risk behaviours in the maintenance of health at home and work. It was also evidenced by John's behaviour towards the risks of HIV and water-borne diseases. In common to both men and women health risk behaviour was informed by accepted social norms which were contextually specific, making the perception and prevention of health risks contingent on social position which was often dynamic.

8.3.2 Perceived risks in treatment seeking behaviour in pluralistic healthcare environments

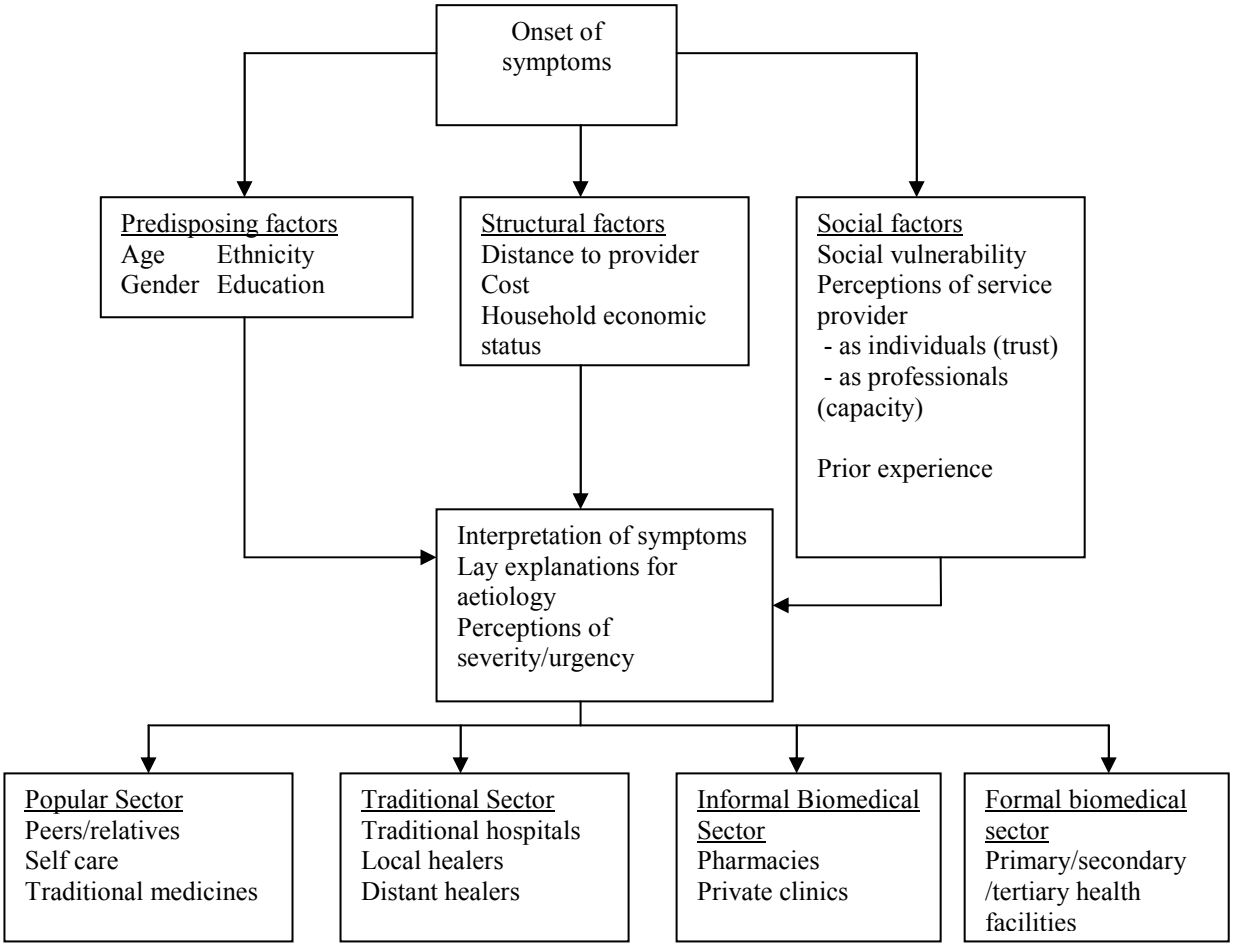
For many villagers, illnesses were deemed inevitable and not actively prevented, but the decisions made in response to illness were regarded as the controllable aspect of managing health risks. Quantification of risks mentioned in data from 40 informants analysed in detail demonstrated the dominance of treatment seeking decisions in risk discourse. Whilst malaria, the most commonly experienced disease in the area, was mentioned by a total of 19 out of 40 informants, selection between biomedical and traditional services was considered by 20 informants to be a salient risk since this involved lay speculations about cause, and the wrong decision could increase risk exposure. Other research on malaria in Tanzania has suggested that it is precisely this relation to perceptions of aetiology and the association of similar symptoms with other illnesses curable through particular medical systems, that prevents many mothers from taking their children for biomedical treatment at onset of symptoms. These cite the blurring of meaning between malaria and *degedege* (see Table 8.1) and the medical syncretism entailed in treatment seeking behaviour (Muela, Ribera *et al*. 2002; Kamat 2006; Langwick 2007). Many research participants also described illness management to be not simply a decision between two alternatives but rather a complex interplay between different service providers. What was given highest

priority in risk perceptions was not which alternative but rather hierarchy of resort or in which order, suggesting similar medical syncretism within the research setting (Pool and Geissler 2005).

Joseph, a traditional healer who ran his own, successful, traditional hospital outside of Barakijiji, explained such medical syncretism when describing treatment seeking behaviour for infertility. He cited three main causes for the problem, each associated with a distinct solution. It could be caused by *mchango,* in which case it would be treated at his hospital using traditional medicine made from plants. It could be the result of a physical problem in which case he advised clients to seek biomedical treatment. Finally, he might attribute it to *mizimu (*ancestor spirits). If this latter was found to be the cause then a *tambiko* ceremony was performed to request the ancestors, who in this case were usually female, to assist in resolving the problem.

Decisions regarding health seeking were dependent on several factors. These included the manifestation of symptoms, the individual's level of social vulnerability at the time of illness and perceived aetiology. They also included more structural factors such as geographic and economic accessibility, perceptions of service providers as individuals and perceptions of quality of equipment and capacity. Some of these factors were deemed controllable, others less so. Decisions were themselves embedded within a wider complex of social relations and socio-cultural beliefs. Figure 8.1 is adapted from conceptual frameworks for treatment seeking presented elsewhere (Sreeramareddy, Shankar *et al*. 2006) and situates treatment decisions within this wider social environment.

Figure 8.1: Syncretic treatment seeking in Barakijiji ward



Whilst the right decision meant recovery, the wrong decision could mean death. Below, I present two studies of particularly common illnesses in the field sites which illustrate the contingent nature of treatment seeking behaviour. I demonstrate how each disease was subjectively experienced as illness and how individuals perceived risk through their engagement in treatment seeking.

Mchango was the term used to describe a range of illnesses which differed according to the age and sex of the sufferer. In common was the invisibility of the disease to biomedicine and physical examination, despite its translation as 'intestinal worms'. Rather, the disease was believed to be cured only through the application of traditional medicine, although it

was accepted that some of the symptoms could be relieved in hospital. However, it was commonly stated that an individual suffering from *mchango* who was given any 'injection' would die. The dangers considered inherent in diagnosis of the illness and subsequent treatment sought were thus highly salient. Most commonly, biomedical treatment for those who were believed to show symptoms suggesting *mchango* was delayed and traditional medicine applied first. Such symptoms ranged from high fevers, stomach cramps and convulsions to paralysis and dementia. But concomitantly, the risk of misdiagnosis and failure to seek timely biomedical treatment was also considered dangerous. The following two case studies provide examples of this risky relationship between symptom identification, perceived aetiology and treatment seeking behaviour.

Agnes was a 52 year old farmer from Shambajiji, who had rarely left her immediate social environment. She attributed the death of her tenth child, who had *mchango*, not to *mchango* itself, but to the decision to take the child to hospital and the consequent injection she was given.

ND: Where did you take her?

Agnes: To Katijiji [local ward health centre]*, she was given an injection but she died.*

ND: Then she died outright?

Agnes: Mm.

ND: But what did the doctors say when they examined her?

Agnes: They examined her and said that it was convulsions.

ND: They said it was convulsions?

Agnes: Ee.

ND: And they said that they had to give her an injection?

Agnes: Mm.

ND: And did you agree?

*Agnes: But I didn't know, I agreed to…because I had a patient [*laughter*]*

ND: You relied on the doctors? How many hours after being injected did she die?

Agnes: After being injected, it didn't even take five minutes.

ND: And what did the doctors say after seeing that?

Agnes: Mm, they didn't do anything, they just kept quiet because she was sick, what else could they do!

ND: But did you think it was…what did you think was the cause or because of what?

Agnes: Mm, it was not due to someone, I also agreed that it was due to mchango.

ND: But if…but before you went to the hospital, did you know that it was mchango, and why did you take her to the hospital because I have been told by just many people that if they know that it is mchango, they just give them traditional medicines.

Agnes: I also had given her traditional medicine. But I failed, the fever became very high, they told me that I should take her to hospital as it looked like convulsions.

[Agnes, Shambajiji]

The excerpt demonstrates several issues. When Agnes' child grew ill she first attempted to treat using traditional medicine, probably on the advice of her peers. At this stage they collectively believed the child was suffering from 'convulsions' attributed to *mchango*. When the 'fever' became too high she was advised to take her child to hospital since the traditional medicine was ineffective. She did not explain whether the perceived diagnosis had changed and whether it was this change that had led to the adoption of an alternative treatment seeking strategy. But her behaviour demonstrated how this was contingent on

local perceptions of aetiology and risk. Concluding initially that the problem was convulsions caused by *mchango*, traditional treatment was sought, but when symptoms continued the illness was redefined as fever and convulsions and biomedical treatment sought. When this failed and the child died, blame was not attributed to her treatment choices but indirectly to the injection, though she never explicitly blamed the hospital nor those who had applied it. Rather, she hinted through her laughter at her own culpability in having passed control over to the biomedical practitioners, but was unable to explain why she had done so.

Jalaad and Zena provide a second example of the recognition of risks inherent in pluralistic health seeking behaviour. They were a young Islamic couple who lived in Barakijiji where they ran a small shop and had five children at the beginning of the research period. They subsequently lost two of these children. During an interview they discussed the death of one of them, explaining how they sought treatment for an illness, in this case going to the hospital first and subsequently to a traditional healer on re-diagnosis of the symptoms. In this case too, they were too late and the child died.

Jalaad: *The second, her body started deteriorating, we thought that she was sick, we looked for malaria medicine, we said that maybe she had malaria.*

ND: *Ahaa*

Jalaad: *We just bought some medicine from the shop and gave it to her. For three days we continued with Panadol. But her condition changed and she started purging and vomiting, the body continued deteriorating. We left and went to Wilayaji* [district hospital]. *We were admitted for three days. We went there and she was examined, then they told us after testing that she had very severe malaria … so we were given hourly injections and*

medicine. She finished the dose for malaria. Then they continued giving her ordinary medicine.

ND: … But you don't know what that medicine was

Zena: We don't know what the medicine was.

ND: And they didn't tell you at all?

Zena: They didn't tell us.

ND: Did you ask them?

Jalaad: We asked them and they claimed that the medicine could help to restore her strength …

ND: They didn't explain well?

Zena: No

Jalaad: We were discharged, it was Saturday, we returned home … we woke up on Sunday morning and her eyes had swollen up … we saw that this problem had emerged again just like the first one [who had displayed the same symptoms].

ND: What did you think when you saw that it was like the former problem?

Jalaad: On seeing that, we then went to traditional healers to seek help … he claimed it was mchango and advised us to go and look for the medicines used for the treatment of mchango. While in the process of going to get the medicines, the disease was already in the brain and she died.

RA: A child gets mchango and that mchango goes into the brain and if you … if you don't take her immediately to be given traditional medicine she … she dies.

ND: You can't take her to hospital?

Jalaad: No, this disease can't be treated in hospital, if she is given an injection, she can die if she is given an injection.

ND: Why?

Jalaad:We don't know … we grew up and found it just like that, but very often we are helped by traditional medicines

[Jalaad, Barakijiji]

The illness had initially been undefined by the parents although they had taken the child immediately to hospital when she began to deteriorate. At the hospital, the child had been treated but with little information passed to the parents so they remained without a clear diagnosis and were able only to make their own assumptions about the nature of the illness. It is likely that their not having been given a clear diagnosis contributed to their later redefinition of the disease as one needing traditional treatment rather than biomedical. For the parents, the death of the child prior to treatment for *mchango* was sufficient proof at the time to suggest this as the cause.

Since the interview, however, Zena herself had grown seriously ill and had been taken to hospital in Mwanza. Jalaad, having had to deal now with three severe illnesses and two deaths sought to avoid a third. Reputedly, this had created a feeling of intense social vulnerability since they had never been given a clear diagnosis. On further enquiry I was informed by several individuals during informal discussions that the couple had consequently redefined all the illnesses as witchcraft and had laid the blame on close neighbours. They left the village under cover of darkness a couple of months after this interview took place and I never saw them again.

This example demonstrates pluralistic treatment seeking as risk reduction and risk avoidance strategies in the context of biomedically undefined illnesses, specifically *mchango.* Such strategies were commonly adopted as a route to identifying causation. Such pluralistic health seeking behaviour was also demonstrated in response to more biomedically categorised diseases such as malaria. For example Wilamena, a 35 year old

farmer from Shambajiji explained; '*everyone necessarily suffers from fevers since this cannot be avoided*'. Malaria was seen as a recognisable disease which was easily defined and treated due to its frequency in the field sites. However, it was this high prevalence and routinisation which was recognised by several individuals as exacerbating risk, since it was often treated with paracetemol. Since the symptoms of *homa* (fever) were commonly experienced and normalised, biomedical treatment was often delayed until the individual was close to death. This led to high morbidity and mortality. In fact, malaria was documented as the most common diagnosis at the local health centre in each of the five years preceding my fieldwork [Katijiji health centre records, 2005]. Given its high incidence, other illnesses were misdiagnosed as malaria, both within the popular and professional sectors. This was exacerbated in the latter by dependence on clinical diagnosis in the absence of laboratory testing facilities. Loveness, a 34 year old petty business woman, explicitly mentioned this when she described the long illness and treatment seeking history of her mother; '*now you know our village hospitals have no tests*'.

Providing evidence of the normalisation of risk, the following two examples show how malaria was either not considered sufficiently dangerous to warrant treatment until it was too late, or was misdiagnosed in the popular and professional sectors and treatment delayed as a result. Both cases resulted in the death of the patient and the incident was recounted to me as evidence of the dangers of erroneous decisions in treatment seeking behaviour.

Tabitha, a 52 year old resident in Barakijiji, had lived some of her life in Mwanza with her first husband. Their first child, she explained during an IDI, had died as a direct result of her own and the health provider's misdiagnosis of disease as malaria. This she attributed to her own ignorance of wider illness frameworks outwith biomedical disease recognition and management. She traced her inability to recognise symptoms of traditional illnesses

such as *mchango* to her urban lifestyle. In her description below she described the illness as convulsions due to *mchango*, but her treatment seeking was for malaria. It is likely that she had only redefined the cause of her son's death after exposure to alternative illness belief models when she moved to Barakijiji, but this cannot be ascertained.

Tabitha: *One got a disease, after six years he got convulsions.*

ND: *Mmmm*

Tabitha: *He got ill and he died.*

ND: *But those convulsions, I want to know your opinion, what do you think caused it?*

Tabitha: *Actually the way they explained it* [who is unclear here]*, it is that when I was breastfeeding the baby he had mchango in his head.*

ND: *Mmmm*

Tabitha: *He was spitting foam, so I used to take hospital medicines only, quinine* [the implication here is that he was regularly diagnosed with malaria]*, and he would feel better. I continued treating him like that but later on the disease continued to be serious. I used to breastfeed him and weaned him after a year because he had a problem with milk, if he sucked he vomited so much.*

ND: *So from the beginning you had a problem during breastfeeding? And while he was young, did you take him to hospital?*

Tabitha: *I bore him in hospital so I never took him to a traditional healer.*

ND: *So you never used traditional treatments?*

Tabitha: *I have never used traditional herbs while breastfeeding, I used to go to the hospital often.*

ND: *But didn't you use traditional herbs because from what I have heard if its mchango then a hospital is useless?*

Tabitha: *Now we were living in town so I had no knowledge of that disease.*

[Tabitha, Barakijiji]

Although not explicitly referred to in her account, Tabitha implied that her residence in an urban locale, and failure to consider alternative possibilities of causation for her son's illness due to her own ignorance, were the main cause of his death. Again, whilst not explicitly stated, she inferred a malaria diagnosis through regular re-applications of quinine to treat the illness. It was not possible to know whether the hospital had tested her son or whether treatment had been based on clinical diagnosis. What is clear, however, is that she had learned from the experience and widened her treatment seeking behaviour as a result to minimise the future risk of reoccurrence.

The following example demonstrates the normalisation of malaria in the field sites, a perception that led to delayed treatment seeking and subsequent death. Arnold, a 28 year old shopkeeper and farmer, discussed the death of one of his children.

ND: *So can I ask what happened when your child became sick, I hear it was malaria.*

Arnold: *Yes, malaria and blood deficiency* [anaemia]

ND: *Mmmm*

Arnold: *We were just given tablets*

ND: *And did they say he would recover? Or what did they advise you to do?*

Arnold: *They just advised us to use oral rehydration salts, so later on we gave him that medicine.*

ND: *How many days did it go on for?*

Arnold: *Just one day and he passed away on the following day.*

ND: *And have any of your other children suffered from malaria?*

Arnold: *There is another who suffered and we took him to hospital and he was given tablets and recovered.*

ND: *Why do you think he recovered and the other child didn't?*

Arnold: *Because the first had suffered for a long time, so we decided to change and go to hospital to be checked …*

RA: *So in the beginning you used to remain without checking?*

Arnold: *We used to go to Mirambo*[local pharmacy owner] *there so we changed … where they checked the temperature only.*

[Arnold, Barakijiji]

Arnold and his wife had initially normalised malaria diagnosis and treatment, attending one pharmacy. Following this incident, Arnold's perception of the risk of malaria was altered. He had previously considered the disease to be 'normal' and less risky because it was so common, but, since the death of his child, he had changed his treatment seeking behaviour. Later on he described a more recent occurrence of malaria in his eldest son, stating that they rushed to the hospital immediately they recognised the symptoms and consequently the child was cured.

These examples have shown that individuals were able to exert agency over health risks through treatment seeking, but that decisions embedded within a pluralistic health care environment encouraged syncretism. In all cases, decisions regarding treatment were highlighted as risky components of the experience of illness in the field sites.

8.3.3 Power and cultures of medicine

I have demonstrated above how health seeking behaviour was considered to be inherently risky and that decisions were not just made in reaction to disease severity but were embedded within wider discourses. These included both quality of service provision and perceptions of the quality of the relationship between health service providers and patients. For many, recourse to biomedicine was considered to limit choice and relinquish power. This was often a result of the power inequalities between providers and patients, as has been found elsewhere in Tanzania (Tanner and Vlassoff 1998; Schellenberg, Victoria *et al*. 2003; Tibandebage and Mackintosh 2005). Even recognising that viable diagnoses of disease were constrained by a lack of laboratory testing equipment and trained personnel, patients resigned themselves to a passive role, having entered a socially distant culture of biomedicine, whose systems of meaning they failed to understand and from which they were distanced. Wilamena, a 35 year old farmer from Shambajiji, described her resignation to the inequalities of power she experienced when visiting the 'hospital'. She explained, '*and we have no tests, so even if you are told that s/he is suffering from a certain thing, you just agree because you don't know anything*'. This, she felt, was a necessary leap of faith since she believed that it was still important to attend a hospital first when someone was suffering since '*if the doctor is caring he can explain it well to you if that disease should be treated at hospital or if its supposed to be treated elsewhere*'.

'*Illness as social object and lived experience*' (Good 1997 (1994)) was often re-interpreted as disease and disembedded from its social context by biomedical professionals. Disparities in definition and experience affected communication between providers and patients. Commonly, those who had lost a child or relative after biomedical treatment were only able to describe the symptoms as they had experienced them and rarely to define the disease from which the patient had suffered. Such disconnections in understanding led many individuals to seek cause of illness outwith biomedicine, although sometimes on the

advice of the biomedical personnel themselves. This was especially the case when medical practitioners recognised no physical disease, or when death had occurred suddenly and inexplicably in hospital. There were many examples from the data of individuals reverting to traditional medicine for explanation. There they were frequently told that it was due to *mchango*, witchcraft or the displeasure of the ancestors. With traditional healers the more encompassing definition of illness and a shared social environment with shared meanings reduced power inequalities. This enabled patients and their families to regain control of the illness by redefining it within a mutually understood worldview. The example below, recounted by my RA, was representative of many other illness narratives.

> *'A couple of days ago a child of two died in Barakijij. He showed symptoms of diarrhoea and vomiting and was taken to Katijiji* [local health centre] *then Wilayaji* [District Hospital] *for treatment. The health workers at Wilayaji could not work out the symptoms and advised the parents to take the child to see a traditional healer, suspecting he had been bewitched. The traditional healer advised that a chicken should be slaughtered in front of the child and gave the parents some medicine. The mother had had an argument with a neighbour a few days previous to the illness and the person concerned had warned utaniona (lit. 'you will see me'). Two days after this the child had grown sick. The parents knew who this person was … The argument had been witnessed by other neighbours so it was known in the community who had caused the problem. The child was given medicine but since they were too late to counteract the witchcraft the child died. The parents accepted the death and its cause and accepted the fact that the child died because they were too late in reaching the healer having spent time first seeking biomedical treatment.'*
>
> [Fieldnotes: 03/10/05]

This example highlights both the perceived risks in selecting between traditional and biomedicine and the meaning ascribed to the illness and death shared both by the family of the dead child, the local community, the traditional healer and even biomedical staff in Wilayaji District Hospital. It also suggests that a re-diagnosis within the traditional sector reduced power inequalities between those with medical knowledge and those with none. Instead, the diagnosis of the illness was resituated within the social context of the traditional sector, drawing on mutually understood systems of meaning. For many participants, health risks in general were interpreted and ascribed meaning within this same social context. This will be explored in the following section.

8.4 The embedded nature of health risks

8.4.1 Perceptions of illness aetiologies

Illness attributions could be broadly divided in three: biological organisms, that might be controllable (through behaviour) or uncontrollable (i.e. fate), supernatural and often layered causes, or causes that were constantly re-defined following re-diagnoses through treatment. In all cases, perceptions of illness aetiology were largely embedded within the social environment, where the illness experience was given meaning.

The need to discover the cause of an illness varied even with the same disease or individual. If an individual became sick, sought treatment and was cured, then aetiology was rarely followed up. This was obviously the case with diseases known to have a biological cause, though this was often non-specific. Teresa, 44 and Naomi, 42 were petty businesswomen and farmers from Barakijiji. They discussed how the death of a child and the loss of a pregnancy respectively, were the result of malaria. Neither felt it necessary to

seek further explanation even though both outcomes were described as 'sudden' since this very suddenness was attributed to the strength of the malaria. Teresa explained:

ND: *Can you tell me a little bit why he passed away, what did he suffer?*
Theresa: *The child just suffered suddenly, it was like malaria.*
ND: *Like malaria?*
Theresa: *Mm.*
ND: *And how did you know that it was malaria?*
Theresa: *Because the child suffered just for one day, in fact just for an hour.*
[Theresa, Barakijiji]

And Naomi described her miscarriage:

Naomi: *I think it was something like malaria because it happened just suddenly, I wasn't even sick.*
ND: *Therefore you were three months pregnant?*
Naomi: *Yes, three.*
ND: *You miscarried?*
Naomi: *Yes.*
[Naomi, Barakijiji]

On the other hand, it was clear from many IDIs that if the patient died without obvious explanation, or the illness was prolonged, then attempts to seek a cause were more likely. The two case studies below highlight the contingent nature of perceptions of aetiology, where often similar illness experiences were interpreted differently by different actors, given differing social situations. Further, the two examples show how perceptions of the controllability of health were contested and based on individualised interpretations of specific episodes with different outcomes, each of which was assigned particular meaning and situated within a distinct life history.

Edward, a 32 year old Sukuma man from Barakijiji discussed the death of his aunt several years previously, during an IDI. Initially he described her as having suffered from typhoid from which she recovered. She then fell ill again about three weeks later and returned to the same hospital where she was told that they could not see any physical problem or cause of her symptoms. A few days after her discharge, she died at home. Seeking explanation for the death, Edward's mother visited a traditional healer, who told her that her sister had been cursed as she had lent money to a neighbour and later asked for its repayment in order to pay school fees for Edward. The neighbour had resented this, had refused and had cursed her instead. Since the hospital had been unable to explain the symptoms, Edward and his mother had sought explanation from a healer, who situated the death within social relations. This enabled them to understand and come to terms with the death.

The following excerpt describes a similar desire to seek explanation within the social environment. It is drawn from an IDI with Serafina, 33, describing the death of her aunt:

ND: *But what disease was it?*

Serafina: *She was suffering from legs and headache, she was more especially complaining of headache and legs.*

ND: *Where was she taken?*

Serafina: *She was in Sekoutoure* [district referral hospital]*, she was admitted there then later on she went to Bugando* [regional referral hospital]*, she was admitted to Bugando too, then they took her to one private hospital in town there, she was admitted in Mwananchi. Later on she was just discharged and she stayed at home there.*

ND: *But they said it was what?*

Serafina: *In fact they were treating her without finding the disease, you know she was complaining of headache and legs.*

ND: *If they say it was more especially head and legs it means they don't know the disease?*

Serafina: *Ee, what disease.*

RA: *Often they know that head and legs is to be bewitched.*

ND: *Others say so but how do you think about it? Do you think it was a normal disease or it was a disease caused by something else?*

Serafina: *We too thought that it was a disease caused by something else and not just a normal disease, she was bewitched, later on when she …*

ND: *Did she know that she was bewitched?*

Serafina: *Ee, from what she was saying herself.*

ND: *But how did she know that she was bewitched?*

Serafina: *She went to a traditional healer.*

ND: *What did they say?*

Serafina: *It's when she started telling me that she was bewitched by her mother-in-law.*

ND: *Why, did they say why?*

Serafina: *She … after she … because she was just at home there as a widow after uncle's death* [her husband]. *Now when that uncle died they left her at home there, before he died he left a written message that when I die this house will belong to my wife and children.*

ND: *Mm.*

Serafina: *''Nobody should do what, should disturb my family.'' So after his death, he had given that message to his young brother, there is his young brother who lives where, in Mbeya, he came there and found him still alive so he gave him that message, he had it with him in hospital there. He gave him and he kept it, and one week after his death his young brother gave that message to his wife.*

ND: *His wife?*

Serafina: *Now before showing it to aunt, after transporting the deceased to his parents' home it was when he called the heads of the clans from father's side and mother's side and read them that message, and when his mother heard that she said, ''how come that house should only be inherited by his wife, it's impossible, I will make sure that she leaves.'' Now that old woman said so. ...Now later on she started suffering just suddenly, sometimes her stomach swelled up, just like that, when she goes to hospital they tell her that it's worms, she would take medicine for worms and get relief and continue working just like that, my aunt used to be a teacher. Now it reached that point of becoming serious with legs and she couldn't even walk to go to work, till she finally died. When she goes to be checked in hospital they don't see anything so she had to go to a traditional healer and she was told like that now.*

[Serafina, Barakijiji]

In this account the failure of biomedicine to cure the illness and define aetiology combined with the desire to create meaning for inexplicable death led to social attribution through witchcraft and divination. In common these two accounts described the cause of the illness as being invisible to biomedicine. It is likely in both cases that this was due to lack of laboratory testing facilities or the failure to carry out tests due to issues of cost and affordability. However, the data demonstrated that cause was rarely attributed to such perceptions of service quality when a patient died. Meaning was instead sought within the wider sphere of social relations. This was despite abstract recognition of the shortfalls in service provision which were sometimes cited as reasons for treatment seeking choices.

This awareness was demonstrated by Lemmy, a 38 year old farmer from Shambajiji in her determination not to give birth at the local health centre, preferring instead to face the risk of home births. She related her fear of hospital birth to the fact that she felt the service providers were '*too clever*' and unlikely to be useful unless they were given money. In contrast, Loveness, a 34 year old from Barakijiji, expressed her fear of the risk of childbirth with traditional birth attendants (TBA) since they often told mothers to push before they were ready and she was aware that this caused, at the least, acute additional pain.

Despite the recognition of such service shortfalls and its pre-emptive influence on treatment seeking behaviour, perceptions of the effect of social relations were more prevalent when explanation was sought post or during an illness event. This dominance of the social in perceptions of health aetiologies was common to many illness narratives and will be considered in the following section in terms of the relationship between social and health risks and possible outcomes for health.

8.4.2 Health risks considered through the lens of social risks

The complex relationship perceived to exist between the maintenance of physical and social health was in evidence throughout the fieldwork period. Trostle (2005), following White (1999), argues that individual '*estimates of risk are strongly influenced by their social characteristics as well as their knowledge of a behaviour or the comparison they are asked to make between behaviours. What motivates people to change is not the abstract risk of contracting a disease but rather the real risk a disease would pose to their plans and dreams*' (p.152) (White 1999; Trostle 2005). I have already cited several examples where cause for inexplicable illness or death was sought within unstable social relations, either based on kinship or entrenched within local community networks. There was also

evidence that the maintenance of 'healthy' social relations with the dead was a common strategy to minimise exposure to health risks or to control or cure after the onset of illness.

Denis, a 38 year old farmer from Shambajiji provided an example during participant observation. I had noticed that he had built small houses made of sticks in the compound of his home and asked what these were for. He explained that he had built these after his cattle had begun to get ill and die and he had been unable to find a cure until someone had suggested to him that it was likely to be a sign of his ancestors' anger since he had failed to show them due respect. Consequently, Denis built these small spirit houses, one each for his paternal and maternal ancestors. Unable to explain why, Denis stated that his cattle had subsequently recovered. Given his belief that his ancestors had been the root of the problem Denis decided to avert similar misfortunes by building a round traditional Sukuma house as a permanent shrine in which they would always find shelter. The building was given everyday meaning and utility as a kitchen.

The disfavour of the ancestors was also considered a causative factor in the illness narratives of others during the research. The two examples cited below demonstrate the perception that certain symptoms were manifestations of the call to inherit traditional healing powers and that some health problems, such as male infertility, could be treated through due consideration to the individual's social position within the descent lineage.

Daudi, a 37 year old traditional healer, had originated from Ukerewe but was currently resident in Barakijiji, where he was developing a solid client base. He had divorced his first wife when she refused to accept his occupation and lived alone. In an IDI he described his path to becoming a healer, emphasising as he did so his position within his family lineage.

Daudi: I was attending school, in around Standard five. I was troubled so much, I suffered so much. I became very weak. So they took me to hospital, after taking me there they couldn't solve it [the problem]. *They took me to a traditional healer and it's when I met my ancestors now and another healer said that 'he is called by the ancestors'. He said that the ancestors have chosen this one. Now, since I was still young he told me that he would do something to stop them so that they wouldn't keep disturbing me. He stopped them by using medicines, so I finished primary education.*

ND: Ahaa

Daudi: So I continued well. After having children later on I went and made canoes. I didn't get problems again then my job stopped suddenly 'pap'. ... When I went to traditional healers there it's when I encountered those things now, they told me that my [ability to] *work had been stopped by the spirits so I had to agree to become a traditional healer.*

ND: Mmm

Daudi: So I agreed and began healing.

ND: And did you agree right away ...

Daudi: First I felt sad because I didn't need that job, so I left and went to another healer. After arriving there he also told me "your problem is the same and if you don't develop it there are big things that will happen to you", so I had to agree.

[Daudi, Barakijiji]

In this account the threat of a dangerous illness persuaded Daudi to follow the wishes of his ancestors, recognising and accepting his inheritance. He later explained that he had no choice since refusal would invite the anger of his ancestors who could kill him. On

acceptance, the healer had made certain medicines which had healed him. However, the powers to heal had to be taught and for this Daudi had paid 400,000/- to the same healer who had divined the problem. In this example, whilst the recognition of social relations with the deceased enabled Daudi to find a cure, the enactment of the cure was dependent rather on social relations with the living in the guise of the healer who cured him, took money off him and taught him the healing craft.

During my residence in Shambajiji, we came across two male youths performing a *tambiko* ceremony on the graves of their ancestors. One of them, the patient, was hoping the ceremony would assist in curing his infertility. The following excerpt describes the incident.

> *The patient told us that the reason they are holding the tambiko is because he is unable to have children and he had been advised that performing a tambiko over the graves of his ancestors would help him .... The healer was naked to the waist except he was wearing a necklace of 'shilungu' (shells). The patient was wearing a black piece of cloth but was otherwise naked to the waist and wearing a similar necklace. Both were also wearing bracelets which the patient removed after finishing the tambiko. They had a stick with an animal hide attached and a traditional spear. They had with them a small metal ungo (tray) which contained milk mixed with white sorghum. They held a small container with black medicine inside. At different times during the tambiko each took some of the white mixture in his mouth and spat in each of four directions; north, south, east and west. The healer spoke first and the patient repeated his words. The tambiko lasted for about five minutes. This tambiko was held over the graves of their ancestors who had been buried here with a single stone marking each grave. When we passed by the place again later that day we found that each of two graves had been left with the*

black medicine placed over this central stone. The men had left some small change and tobacco on the graves. These represented gifts to the ancestors.

In this example the ceremony, combined with the presentation of gifts to the ancestors, was an acknowledgement of the lineage in the hope of achieving a desired outcome. It was not clear, however, whether the youth attributed his infertility to the anger of the ancestors or whether he simply sought their help in securing a cure.

A relationship between the maintenance of social reputation and the minimisation of risks was also identified and presented in Chapter 6 for economic risks. This was also the case for health risks. It was difficult to ascertain whether the ability to minimise health risks improved social status or whether the control of health related risk was a bi-product of the desire to optimise social status. If the former, individuals were active agents in the control of health risks but if the latter then salience was given to improving status rather than risk reduction. Returning to White (1999) and Trostle's (2005) suggestion cited above, it is likely that health risks were prioritised only if they posed a threat to other elements of individuals' lives (White 1999; Trostle 2005). In fact, for some individuals, the desire to maintain their respectability actually increased the risk of child mortality and hunger. During participant observation Jackson discussed the case of his neighbours and the incident he recounted was also raised during a FGD with men in Shambajiji. The excerpt below describes the incident and the men's collective analysis of it.

P1: There is my neighbour whose child died of hunger, we saved all the rest by giving them maize flour porridge, they ended up vomiting but two of them survived, they were two. One died because of hunger.

RA: For how many days had the children been without food?

P1: I can't say for how many days they had stayed without food. Because during the day they had eaten cooked cassavas, then at night they drank cassava flour porridge. Then they continued munching those peeled cassavas. Therefore they had stayed for two days without food, they were only drinking cassava flour porridge.

ND: Do you think if they were helped they would have…

RA: They would have survived?

P1: Yes.

ND: And why were they not given help earlier?

P2: The parent of the children, first of all he didn't say clearly that he didn't have food at home, we the neighbours had food. But he was afraid to tell us that there was hunger at his home, that he didn't have food. That is what killed his children, that is what caused one of them to die. If he had said earlier that "honestly I don't have food at home." We neighbours would have helped him.

ND: Why do you think he didn't want to make it clear that he had no food and instead he opted to hide? Why didn't he trust his neighbours?

P1: Those are personal matters. You know the heart has the tendency to hide things. The heart has that disease to conceal wrongs. Because someone may decide not to reveal his wrongs but in fact it becomes a double mistake, because if he didn't have a hypocritical heart, he would have been given help.

ND: Is he an ordinary person or he is someone different from others? Would others say?

P3: He was just an ordinary person.

ND: So all of them would have hidden themselves?

P2: I think he hid himself. But others…

P3: Most of us the Sukuma people are very secretive, most of them.

P1: That is why we the Sukuma people…we find it very difficult to say, even if I have a problem, I can't tell you.

P2: We have that fear.

P3: I will fear that they will publicise me …even if it is a home problem.

P2: That I give out a secret of my problems at home, people will disrespect me that I have problems. First of all his health was good so he could have worked.

P1: Now to get rid of that problem and although it was raining just as usual, I mean he had famine due to his lazinesss, because of drinking this, what do they call that?

RA: To drink these local beers.

P1: Yes, he had that famine because the famine at that time was not like the famine of these years. It was only for few people. So he felt shy to do what, to make it clear to the people that he had famine at home. That was the reason that made him have what, have that problem, have such a problem. Because had he not been shy to say that he had famine, we would have helped him as we had enough food.

P2: That night they drank cassava flour porridge. Ee, we knew that it was due to cassava according to the smell that they were giving out. That is when we volunteered to go to bring maize flour so as to do what, to make some more porridge so as to save the others. But we saved those two, the condition of one became critical and he died.

[FGD 31/01/06 EMAMA]

In discussing the event, the men described his refusal to share his problems because of his desire to maintain self-respect. If he had admitted to the problem in feeding his children he would have also been publicly shamed into admitting that he drank too much and had been too lazy to concentrate on household food production. In describing the incident the men also referred to a broader Sukuma identity which they characterised as not willing to share problems or be open with others, since this would invite criticism and inhibit individual

ability to maintain social reputation. In this example, this contributed directly to the death of a child.

I have demonstrated here certain aspects of the interplay between health and social risks. There was evidence to suggest that social risks dominated risk consciousness and that exposure to health risks was often increased as a direct consequence of this salience of social risks. It is widely accepted that this is one aspect of the HIV debate; that condoms are not acceptable within regular sexual relationships due to the social requirement to show trust and that one can be trusted (Mgalla and Pool 1997; Setel 1999; Bujra 2000; Maharaj and Cleland 2004; Lees, Desmond *et al*. Accepted). There was evidence that individuals were exposed to social pressure to seduce and be seduced and that not doing so was considered irregular behaviour. The following provides one example taken from an FGD with male youth in Shambajiji.

P5: After arriving there we saw our friend, … she told us that guys when you want to return give me a lift, we told her okay where shall we find you? She said you will find me somewhere, you see. So after finishing our issues we decided to look for her and give her a lift again because she is known to us. We told her we are now returning, you see, we picked her, the guy who had carried her didn't seduce her, you see …the following day we met that girl again and she told me, "mmh, what's wrong with your fellow? He carried me all the way to town and back but he didn't seduce me, why?" I asked her that, mmh, "so you expected him to just seduce you?"

RA: [Laughter]

P5: "He has failed even to seduce me, I think he is not perfect, he is impotent."

P1: So you find that a woman walks…thinking about being seduced. I mean if she is seduced she says, "aha, so I am beautiful too."

P5: If she is not seduced she will ask herself so much.

[FGD 21/02/06 AYTHMAMA]

In this excerpt the woman was responsible for expecting sexual exchange and men experienced social pressure to fulfil certain socio-sexual roles. The risk of loss of social reputation (in this case, linked to sexual reputation and the girl's perception of her own attractiveness) was emphasised over the consideration of possible health risks in exchanging bicycle lifts for sex. Such exchanges were common both in terms of expectations and actual practice. Jacob, a bicycle taxi driver from Barakijiji, described similar expectations of women seeking lifts. He believed that women used traditional medicines to make themselves more attractive so they would succeed in exchanging sex for lifts. He explained during a trip one day that this had occurred to him several times. In his explanation he also felt that women sought such sexual exchange as proof of their attractiveness. It is interesting that in both these examples the health consequences were not emphasised. In contrast, in other instances individuals demonstrated themselves to be risk conscious and implemented strategies to avert particular health risks, discussed in the next section.

8.5 Shaping health through prevention

8.5.1 Hygiene and prevention of health risks

The concept of prevention was applied differently according to type of health risk. Ideas of prevention were often introduced expressly through the research method, using the terms, *kukinga* meaning to protect, guard or defend and *kuzuia* meaning to stop, restrain, obstruct or prevent. Prevention of illness was commonly interpreted as early treatment seeking. This was especially the case with many recognised biological diseases such as

malaria. In contrast, individuals often developed complex strategies to avert exposure to illnesses with recognised social causes such as witchcraft. Some applied such complex strategies to general health maintenance. Despite this, biomedicine was frequently used for treatment whilst traditional medicine was often described as more effective in prevention.

For example, Naomi from Barakijiji described her perspective on the prevention of disease. In so doing she distinguished between diseases such as malaria, for which she considered timely treatment seeking as prevention, and other diseases amongst children, such as worms and schistosomiasis, for which prevention was possible through regular check ups.

Naomi: *For example maybe the risk of being infected with diseases?*

ND: *Mm, what do you do to protect yourself [kujizuia]?*

Naomi: *When you see the symptoms you go immediately to the hospital.*

ND: *What else do you do? To stop malaria or to prevent diseases?*

Naomi: *Ee, all the diseases. I go to the hospital, after testing you start taking medicine.*

ND: *Mm*

Naomi: *Ee, for example on the side of children, we stay for months then you go to test the stool for the purpose of checking amoeba, bilharzia.*

ND: *After how many months?*

Naomi: *You can even stay for three months. Mm, usually I have that system.*

[Naomi, Barakijiji]

Individualised disease management for certain diseases was generally regarded as successful in seeking early treatment once illness was manifested. For other recognised diseases such as schistosomiasis, Naomi and others had followed the advice of external

health providers and taken responsibility for prevention. For Naomi, as for many others, there was little conceptual distinction between 'prevention' as understood by health professionals, 'self-protection' and 'minimising negative consequences'. James, a 49 year old farmer provides us with a different example from an IDI.

James: *I went to be treated for bilharzia in Sumve.*

ND: *Mm.*

James: *In Sumve hospital. I recovered and till now I observe the conditions, after six months I go again to do what … to take medicine.*

ND: *Mm.*

James: *I take every six months, I go even to Katijiji* [local health centre] *there and tell them and they give me if it's just a protection. Before I even see the symptoms, I just use it perhaps as a protection [kinga].*

ND: *Mm.*

James: *Ee. Because during the rainy season I … I am worried so much, because perhaps I cultivate in a water area I think perhaps there are problems, now even the children here at home they wait six months then I take them there.*

ND: *Mm, and who advised you to protect yourselves, to prevent it?*

James: *To prevent, because there was a time when this minister of health, who, Chiduo, it was still Chiduo* [previous Minister of health]. *He said that every Tanzanian should wait six months and then go to check his health. But here since there is no microscope and what, we use, perhaps for other diseases like this bilharzia, more especially just to tell them and they understand you.*

[James, Shambajiji]

This informant had experienced schistosomiasis as a child and he felt that this had led to his increased awareness and willingness to actively prevent the disease in his children, demonstrated by his use of the word *kinga,* implying active risk management.

Why did these two individuals, who, on the surface at least, appeared no different to other research participants, take active measures to prevent certain diseases? James demonstrated risk taking in the education of his child to pursue the possibility of future profit and had spent parts of his working life in a factory in Mwanza City. Similarly, Naomi had had wider opportunities for life and work. Such active prevention seeking for certain diseases was not, however, common to all research participants. Rather, these highlighted cases provide evidence of the influence of social experience and social position on risk perception.

Despite a certain lack of awareness of prevention strategies for, and normalisation of, many health risks, many parents sent their children to routinised mass vaccination campaigns established in the area. These included vaccinations for measles at child health clinics and community or school-based mass treatments for schistosomiasis and trachoma. Support for these campaigns was encouraged by previously successful eradications of smallpox and measles in the area and uptake was perceived to be generally high. James' reasons for schistosomiasis risk management cited above may provide a clue to this high rate of uptake. Perceptions of the technical capacity of outsiders combined with the desire to ascribe agency and responsibility to others translated to engagement with vaccination campaigns, since often those same individuals who failed to act to prevent other health risks in their lives sent their children to routine interventions. Similarly high rates of uptake have been found in studies on the acceptability of azithromycin control campaigns in Tanzania where uptake was influenced by perceptions of expertise in service providers

as outsiders, and unrelated to either socioeconomic factors or frequency of visits to traditional healers (Desmond, Solomon *et al*. 2005).

Many individuals were risk conscious with regard to strategies to maintain health. Many hygienic practices were normalised and unconscious behaviours which were not referred to explicitly either by the participants or myself during the research, suggesting some common cultural assumptions. Examples include washing hands before meals and sweeping to minimise dirt. Hygiene perceptions were most evident in the practice of boiling drinking water. Although some individuals demonstrated an acute awareness of the risks of not boiling drinking water, many undertook erratic practices based on locally rational decisions which did not reflect etic advice on safe practice from health workers. This clearly highlighted disparities between etically led health interventions and emically informed local practice. For example Mary, a 54 year old petty business woman voluntarily discussed the risks she felt were entailed in not boiling lake water:

Mary: They bring me four plastic containers. I boil two and two are for cooking and what.

ND: And you boil it for what, for drinking?

Mary: For inside, that lake water

ND: Can you tell me why you boil it because many people here don't boil it?

Mary: Aa, now they say that lake is bad … At least water from the water well is clean, it has no dirt, but lake water has dirt

[Mary, Barakijiji]

Since she thought well water was clean she did not boil it. Despite a similar background and raising young children, Wilamena was less conscious of the need to boil drinking

water. Although aware of her erratic behaviour with regard to clean water, she was unable to explain the cause:

Wilamena: *Perhaps we …if you find people talking about it somewhere, perhaps we have been careless in boiling water.*

ND: *Mm, and do you do it or you don't do it?*

Wilamena: *In the past I used to do it but right now really I don't …*

ND: *You don't do it?*

Wilamena: *… I don't do it.*

ND: *But you used to do it in the past but now you don't do it?*

Wilamena: *Perhaps I just got tired. I thought that it's a tough job, perhaps it's a tough job, may be it is carelessness.*

ND: *Mm*

Wilamena: *Really I don't understand it there.*

[Wilamena, Shambajiji]

Yet others argued that the very act of drinking boiled water invited illness and complained of stomach problems since *nimeshazoea* ('*I am already used to it*'). This phrase was given as sufficient reason for refusal to adopt change. The following excerpt recounts visits to water wells one day in Shambajiji:

'One woman told me that the water is dirty but that most people do not boil it since ' tumeshazoea'. Although she said she was aware that not boiling the water could be dangerous she said they were used to drinking dirty water so it did them little harm.'

[Fieldnotes: 11/11/05]

This response, *nimeshazoea,* was commonly cited to questions about behaviour towards health risks when individuals were aware of the dangers but failed to act on this awareness. This inferred a failure to respond to risk since actual risk was perceived to have been reduced by constant re-exposure to the same risk. This again highlights the fact that normalisation of risk exposure plays a central role in risk prioritisation. A similar concept of failure to prevent risk exposure was evident in discussions about malaria. As stated, high prevalence of malaria in the area had ensured its status as unavoidable and normalised. Unless salience was heightened by the death of a child, or risk prevention asserted through early treatment seeking in hospital, individuals did little to either prevent the disease from occurring or to treat the disease with malaria drugs unless symptoms were serious. Malaria, like many other diseases, was considered uncontrollable and thus unpreventable outwith timely treatment seeking. Moreover, and despite active prevention by some, many illnesses were described fatalistically, as unavoidable. Illness was considered to be inevitable and death common. A youth participating in a FGD in Shambajiji described this: '*nowadays we are not afraid of death, as death is now the order of the day*'. It is this referral to fatalistic discourses and perceptions of ability to control illness which will be examined in detail in the next section.

8.5.2 Fatalistic discourses and control of health

The frequency of illness and the recognition of death as an everyday occurrence is likely to have influenced the position of health risks within the wider risk landscape. I described in Chapter 7 how fatalism has been described as '*a refusal of modernity – a repudiation of a controlling orientation to the future in favour of an attitude which lets events come as they will*' (p.110) (Giddens 1991) and thus as a characteristic feature of modernity, rather than tradition. I also suggested that this notion may actually reflect a worldview in which the individual chooses to distance him/herself from the risk of making a wrong decision and

thus from the responsibility for 'failure' (Smith, Cebulla *et al*. 2006; Henwood, Pidgeon *et al*. 2008). Given the frequency of illness and death it is not surprising that fatalistic discourses and a sense of uncontrollability were more extreme than was the case with other types of risk. Heavy disease burdens experienced under structurally poor conditions encouraged the common reaction of removing responsibility for frequent 'failures' by attributing blame for the inexplicable to either supernatural or powerful others.

In Chapter 7 I showed that, of all substantive risk categories for 23 women examined in detail, it was only with health risks that they were consistently fatalistic, whatever their social position. Greater access to alternative lifestyles increased perceptions of controllability with regard to risk in general. In addition strategies for manipulating social capital and involvement in social groups such as microfinance groups were employed to control general risk exposure. Returning again to the examples of Mariam and Loveness from Chapter 7, despite disparities in recourse to fatalistic discourses in perceptions of other types of risk, both were extremely fatalistic towards health risks. Mariam described the maintenance of health as in '*God's plans*' whilst Loveness questioned the very possibility of prevention of disease; '*you cannot avoid them, how can you avoid them?*'

I also demonstrated in Chapter 7 that individuals felt vulnerable to health risks, despite level of social engagement, and only exploited their involvement in social networks to react to health problems rather than to prevent them. In some cases, such as that of Jackson's neighbour who lost a child through starvation, the risk of loss of social reputation even prevented reaction to illness once experienced. Attempts to control exposure to health risk often revolved around economic preparedness for future possible illness experiences. Thus those with higher social status were often those who were more economically prepared to deal with health problems such as those who owned cattle as an insurance policy to cover the cost of unexpected hospital fees or funerals. For example,

Denis, a farmer in Shambajiji, described his 30 cattle as an insurance policy to provide income to finance unexpected events. On the other hand, Patience, a 68 year old farmer from Barakijiji, described her lack of preparedness for misfortune, having had to sell land to cover the costs of her daughter's illness. Agnes, another farmer described during an IDI why the family kept goats:

Agnes: We keep them for our well-being.

RA: Ehe.

Agnes: I sell and go to buy food. When I am ill I sell one and do what…. That is why you see that they are few, we sold some in order to help us in our problems.

[Agnes, Shambajiji]

Irrespective of level of economic preparedness, the expectation of health related misfortune was generalised and fatalistic. Treatment seeking was considered appropriate but not necessarily sufficient since in the end, recovery was 'in the hands of God'. Men in Barakijiji explained:

'He is sure of getting all the services because when a person becomes sick he must be sure of getting treatment, although to recover it's in the hands of God. You can spend your money for your treatment but still you just die.'

[FGD 18/01/06 DNYMA]

Once misfortune had occurred the perceived ability to control health risk, which was lacking in the prevention of such risks, was sometimes reasserted retrospectively through attempts to seek explanation for the misfortune. This need to understand aetiology was rarely satisfied through biomedical explanation, given both biomedical capacity, power

relations and perceptions of trust (Gilson 2003) between providers and patients. Whilst some individuals accepted the misfortune fatalistically as inevitable or as God's will and sought no further explanation, others were encouraged to seek out traditional practitioners. These assisted the individual in reasserting control of the misfortune by attributing cause, situating the episode within social relations, and providing prevention mechanisms for future possible events. Variation in practice was most frequently related to type of illness, manifestation of symptoms, outcome and current social position within the wider community.

8.6 Conclusions

Focusing on health risks, this chapter has explored the relative salience of health concerns within the wider risk landscape. By exploring subjective experiences of ill health I examined the relevance of theoretical arguments presented in previous chapters to the specific context of health risks. I have shown how health related concepts such as treatment seeking and prevention fit within this risk framework.

I have demonstrated the extent of vulnerability to illness as an everyday occurrence, situating this within the wider social context. I have also shown that this did not necessarily translate to heightened risk awareness. In fact, some illnesses were so normalised they were seen as natural and unavoidable. Risk prevention strategies for some ailments were routinised. Despite this, social position affected perceptions of health risks; both health awareness and preventive behaviour were often related to accepted social norms and socio-economic status.

The main way in which villagers thought they could avert health risks was through choices in treatment seeking, often between traditional and biomedical options. This was

experienced within a syncretic medical system. Treatment seeking decisions, I argue, were dependent on the manifestation of symptoms, an individual's perception of his/her own level of social vulnerability at the time of illness and perceived aetiology. More structural factors such as accessibility and perceptions of quality and capacity also influenced illness management. Some of these factors were deemed controllable whilst others were considered less so. But the control that was often lacking over susceptibility to illness was re-established in the management of treatment. This made risks considered inherent in health seeking decisions a priority.

Regardless of treatment seeking decisions, health risks were frequently interpreted and given meaning within the social context. An illness could be defined as biological, supernatural or rather, could be subjected to a constant redefinition of cause following re-diagnosis through treatment seeking. It was shown that perceptions of aetiology influenced health risk perceptions and behaviour. Moreover, the need to understand aetiology was often shaped by the outcome of the illness.

The cause of illness was often attributed to unstable or unhealthy social relations. The maintenance of healthy relationships with both the living and the dead was thus commonly considered a route to minimise health risks. Furthermore, routinised behaviour in maintaining social reputation, whether inadvertently or not, sometimes contributed to a reduction in health risk exposure. But health risks could also be increased as a direct consequence of the dominance of social risk perception in people's lives. Similarly to treatment seeking, the concept of prevention was conceived differently according to type of health risk. Whilst much preventive behaviour was so routinised that it went without saying, prevention also had a broader meaning amongst the lay population of both field sites than that understood amongst health professionals. It was interpreted as both prevention such as attempts to minimise exposure to witchcraft through the maintenance of

healthy social relations, and early treatment seeking at onset of symptoms to minimise negative consequences.

Of all risks discussed during the research, only health risks were consistently assigned a degree of inevitability and attempts to avoid it, futile. A lack of such active participation in the control of individual health is not exclusive to the community in this study [see for example (Vera-Sanso 2000)]. The following concluding chapter will consider this element of fatalistic discourse and inevitability as one of the multiple discourses affecting perceptions of risk.

Chapter 9: Conclusion

9.1 Perceptions of risk in rural NW Tanzania

This study has explored the broader discourses which shape how people perceive risk in a rural and peri-urban environment in north-western Tanzania. I have argued that, rather than conforming to one dominant discourse in interpreting risk, individuals refer pluralistically to a range of discourses, all of which are equally valid (Foucault 1980). I have identified the potential hazards about which villagers are most concerned and situated these within the broader social, historical and political contexts in which they are experienced. I have deductively examined Douglas' theory of the relationship between social position and risk perception and, through the application of ethnographic methods, explored risk perception inductively from the collection of empirical data. Since it has been suggested that health represents '*an attempt to conjure up a sense of relative order in the midst of the chronic uncertainties of life*' (Steffen, Jenkins *et al*. 2005), I also focused on health risks and health seeking behaviour as a useful category for exploring risk perceptions.

The original stimulus for the study was to better understand how people respond to the risk of HIV by examining which other risks are salient to them in their daily lives. Whilst my findings have provided some useful insights into how people may respond to HIV risk within the complex contexts of people's daily lives, the focus of the research and thus the data is the much broader risk landscape. Given the emphasis on those risks of emic salience, HIV has been addressed *in situ* and the weight of its presence in the thesis reflects that of its presence in the daily lives of the individuals I lived and worked with. This is in stark contrast to the emphasis and position ascribed to HIV as a salient risk by the external funders and 'professionals' referred to in Chapter 5. This in itself indicates the disconnects

that dominate between risk as discourse and risk as experience and between emic and etic viewpoints. Perhaps it is the recognition of these that may go some way towards an approach to HIV prevention. However this is the task of other work, and this research has sought to understand the complexities of the broader risk landscape in order to inform such further efforts.

In Section 9.2 of this concluding chapter I recapitulate the main empirical findings of the study to provide an overview of the risk landscape. I end in Section 9.3 by drawing some theoretical conclusions from the findings which I hope will make the study more relevant to the broader fields of risk perception, development and health.

9.2 An overview of the findings

9.2.1 Framing risk perception

I demonstrated in Chapter 5 how risk perception was culturally relative and framed by the wider socio-political and structural context of the perceiver. This was the case for externally funded interventions to control health risk, which were based on a scientific paradigm and assumptions of objectivity. It was also the case for local health service providers who relied on partial representations of risk knowledge to define risk priorities, often due to structural constraints such as shortfalls in equipment and training. Additionally, government health providers were constrained by ambiguous social roles as both community members and concurrently as biomedical professionals. Perceptions of health risks amongst the lay population who attempted to engage with biomedical intervention were also partial, which was exacerbated by power differentials between patients and providers. These power differentials, from a western or etic perspective, undermine the biomedical encounter and exacerbate distrust in providers amongst patients

(Grimen 2009). The relinquishing of control expressed by Joseph when describing the death of his daughter (Chapter 5), may in fact reflect his perception of the efficacy of the diagnosis and treatment of illness. Engaging with the potential disparities between etic and emic perspectives on the quality of service provision may be useful in contributing to interventions designed to increase uptake of biomedical services through improvements in quality.

Secondly, I showed how people's articulation of the risks that they deem salient depended on the research methods used. The examples of Eliza, Pendo and Mariam highlighted how framing in the research process leads to methodological disparities in risk priorities. Henwood *et al* (2008) stated that '*what is perceived as risk and how that risk is perceived will vary according to the context in which, and from which, it is regarded*' (Henwood's emphasis), (Henwood, Pidgeon *et al*. 2008). In investigating risk as both an abstract category and embedded within particular social experiences, I demonstrated a clear disparity in risk salience between artificial research contexts and the reality of daily life. This was obviously affected by rapport between the researcher and participant and by social desirability bias. Furthermore, there were a greater number of risks identified through informal discussion and life history narratives than through addressing 'risk' in the abstract. This was also related to the comparative length of time spent in each approach, and to the fact that, as an abstract category, risk is a challenging concept (Tulloch and Lupton 2003).

However, I also showed that different types of risk were highlighted given different circumstances for framing risk. The first were those risks raised predominantly when discussing risk as an abstract category but which rarely featured in other methodological contexts. These included HIV and other health risks as well as risks which were rare occurrences like snake bites. These risks were most subject to a process of 'othering':

individuals tended to distance themselves from the majority of these risks. The second type of risks was those raised predominantly through informal conversation, observation or within narrative interviews. These included risks such as social risks of jealousy, social isolation and witchcraft. I suggested that these types of risks were most likely to be prioritised as subject to risk aversion strategies. Finally a third type was those mentioned regularly in both abstract and embedded contexts. These were often those for which risk management strategies were likely to be implemented such as living in unclean environments, a lack of education and unpredictable rainfall. By demonstrating that the effect of method on the articulation of risk priorities varied between risks, I showed both that broader discourses regarding context influenced risk discussions and that these discourses often went unrecognised by external agents implementing interventions, precisely because of the method used to research risk.

Finally, I demonstrated the heterogeneity of risk perception through the quantitative presentation of all risks mentioned by research participants. This was based on the 40 informants (23 women and 17 men) whose risk perceptions were analysed in detail. A total of 88 risks were mentioned. Of these HIV and witchcraft were raised most frequently and equally by women whilst men cited witchcraft more frequently than HIV. Both men and women highlighted the risks of hunger, theft, jealousy, dirty water, *mchango*, malaria and treatment seeking behaviour. Women mentioned risks such as living alone, infidelity, divorce, domestic violence, trusting others too easily and loss of social reputation more frequently than men, whilst men tended to highlight risks such as a lack of education and poverty, more frequently than women. This presented a descriptive overview of the risk landscape.

9.2.2 A social perspective on risk perception

In Chapter 6 I explored the role of social context in risk perception. I showed how structural factors such as socio-economic position, exposure to alternative lifestyles through migration, partner type and gender were influential in shaping which risks individuals were concerned about. This supports Douglas' assertion of risk as contested and dependent on social position (Douglas 1992). In Chapter 8 I highlighted the dynamic element of social position and demonstrated how individuals could have a portfolio of different ways in which they perceived risk, given differing social roles in changing social environments. For example, John, a fisherman from Barakijiji, highlighted the risks of HIV in his working environment and took measures to avoid this whilst consciously exposing himself to water-borne disease risks. In contrast he implemented measures to control exposure to water-borne disease through boiling drinking water at home but exposed himself to the acknowledged risk of HIV. This demonstrated the integral role of social environment in risk perception.

Strategies for controlling the future and minimising risk exposure were demonstrated in access to social capital. This included reliance on a system of reciprocal social relations and mutual aid through, for example, microfinance groups. In turn these facilitated access to emergency funds for unforeseen expenses in the alleviation of misfortunes such as unexpected illness or death. Access to social capital has been found to promote health elsewhere (for example (Kawachi and Berkman 2001; Campbell, Williams *et al*. 2002; Pronyck, Harpham *et al*. 2008). Here it formed part of a conscious attempt to manage future risk, by promoting reciprocal social relations and demonstrating trust in others. Such strategies were considered a route to *maendeleo* and the achievement of a *kisasa* lifestyle. Whilst these were considered the outcomes of individual action, economic constraints necessitated collective strategies for facilitating development. Thus, ideals of *maendeleo* and the achievement of a *kisasa* lifestyle were ideologically integrated with those of community participation and the ability to draw on social capital.

Social relations were also characterised by ambiguity. The majority of research participants highlighted the risks inherent in social relations. For example, of the 40 informants whose risk perceptions were examined in detail, 16 cited jealousy as a salient risk whilst 30 cited witchcraft, commonly as a direct result of the latter and often due to relative *maendeleo*. Ten highlighted the dangers of trusting others too easily whilst eight felt that social isolation was risky. These concerns clearly represent the relentless contradictions between reliance on, and distrust of, others. Such a state of social insecurity necessarily heightened risk awareness of social relations. Thus, for those within local social networks, social capital relieved some of the pressures of poverty and provided routes to risk aversion, but only if social relations were carefully managed. This management required sharing wealth and knowledge so that social reputation was enhanced, not just through the possession of either, but rather through using them to contribute to collective development schemes or individualised patron-client relations of mutual benefit. However, for those outside such networks, such as some women who had immigrated through patrilocal marriage, these same social structures could be the source of, rather than the solution for, risk (Baum 1999). This relationship between enhanced social status and social engagement has certain implications for health promotion. Individuals demonstrate their social commitment through sharing their good fortune, and the act of sharing or giving raises social status and the perceived integrity of the individual. Thus, if identified appropriately, those individuals who do not necessarily possess official or formalised social roles could prove to be a valuable and trusted resource in community-based health promotion work. This supports evidence that suggests that the integrity of the messenger is integral to the value or interpretation of the message (Salmon and Atkin 2003) and goes some way to addressing underlying tensions in governmentality which often undermine the effectiveness of health promotion activities pursued through standard protocols of local government involvement.

9.2.3 The past and future in risk perception

In Chapter 7 I provided evidence to highlight the normalisation central role of strategies to interpret misfortune. Such strategies frequently involved the intercession of traditional healers whose role traversed the past, present and future through, treatment seeking, interpretation of illness and divination. In this way, individuals drew on the interpretation of the past to direct the future. Traditional healers' privileged position with regard to both the prevention and treatment of illness supports calls for their involvement in health promotion. For Giddens (1991) the reliance on the past to direct the future indicates a traditional culture (Giddens 1991). Giddens described late modernity as a '*post-traditional order but not one in which the sureties of tradition and habit have been replaced by the certitude of rational knowledge*' [p.2-3 (Giddens 1991)] as an Enlightenment perspective would have suggested. He suggests that '*the more tradition loses its hold and the more daily life is reconstituted in terms of the dialectical interplay of the local and the global, the more individuals are forced to negotiate lifestyle choices among a diversity of options*' [p.5 ibid.] and that this, in turn, leads the concept of risk to become '*fundamental to the way both lay actors and technical specialists organise the social world*' [p3 ibid.].

It was not possible to ascertain whether Barakijiji Ward could be defined as being in late modernity. This was primarily because this is an external or etic construct drawn from a western and ethnocentric paradigm of progress and development. In common with other critiques of Giddens (Appadurai 1996; Karp and Masolo 2000), this empirical study showed that, rather than a dichotomous opposition between modernity and tradition, there is instead what Heelas (1996) describes as a '*co-existence'*. He states that '*anthropologists are increasingly emphasising the fact that small-scale societies are internally pluralistic … accordingly the traditional is interpreted in different ways*'(Heelas, Lash *et al*. 1996) and

may coexist with pluralistic forms of *kisasa*, since modernity has been realised '*as a kind of totality constituted by contrasting often disjunctive possibilities*' (Weiss 2004). In other words, Barakijiji was an '*internally pluralistic'* society in which one individual was likely to demonstrate both 'traditional' and 'modern' characteristics, both in terms of lifestyle and cosmologies. This research identified multiple discourses, both those which could be defined as tradition and modernity, which influenced risk perceptions. For example the seemingly contradictory discourses of biomedicine and traditional healing were syncretic treatment seeking options. For individuals faced with risky choices in the maintenance of health, the interplay of tradition as represented through traditional healers and modernity as biomedicine is not contradictory, as a western perspective may suppose. Instead dualistic approaches enhance lifestyle choices, and in so doing, both increase and decrease risk.

Having said this, in my sample there were some individuals whose lifestyles corresponded more closely to Giddens' definition of late modernity and these proved to be more risk conscious and risk averse than those whose lifestyles reflected more traditional values with restricted alternative opportunities. These were individuals who were involved in the wider cash economy and who had a broader exposure to alternative lifestyles such as Loveness, involved in the wood selling business and who regularly migrated between Geita, Mwanza, Ukerewe and the field site, discussed in Chapter 7, and James, who had previously been employed in a garment factory in Mwanza [see (Pool, Maswe *et al*. 1996) for additional description of this factory and its workers in relation to sexual behaviour]. Although more risk averse, these same individuals also adopted a fatalistic discourse towards other risks over which they experienced little control. For example, Loveness described ill health as inevitable and James was fatalistic about his child's death which he described as '*an ordinary incident*'. Giddens also argues that this fatalistic perspective is associated more with modern life than with traditional cultures [p112 (Giddens 1991)]. Thus, although acknowledging the small number of cases and the lack of systematic

sampling, I suggest that this study provides some evidence that for those with access to alternative lifestyles and choices, who can be defined as possessing some attributes of modernity or a *kisasa* lifestyle, risk awareness is likely to be heightened. At the same time I agree with Giddens' critics who dispute a dichotomised dualism between modernity and tradition and instead posit a pluralism which combines elements of both tradition and modernity within individuals and societies.

Giddens described late modernity as the period in the West which followed modernity. It is defined by changes in risk perception since individuals have become aware that expert knowledge is contingent and subject to change. Given this, individuals have more responsibility to construct their own self-identity in an uncertain world due to both a broader range of lifestyle options and exposure to alternative expert knowledges (Giddens 1991; Allen 1996). However, in contradiction to Giddens, who suggests that this reflexivity is a feature exclusive to late modernity, this study has shown that even those in vulnerable states of poverty with no access to the benefits of expert knowledge, sought opportunities to reflexively create their own self-identity. For example, microfinance group membership provided opportunities for a broader range of lifestyles options. In this way individuals demonstrated their capability (Sen 1999) in the management of everyday risk. Sen (1999) stated that human capability is related to '*the ability of human beings to lead lives they have reason to value and to enhance the substantive choices they have*' (Sen 1997). Thus, whilst individual agency may have been constrained by circumstances of poverty which limited choice, capability was encouraged through for example, access to social capital. Thus, despite restricted substantive lifestyle alternatives which are considered, by Giddens, as vital to the ability to perceive and manage risk (Giddens 1991), individuals in vulnerable socio-economic circumstances were capable of choice at a micro-level and this capacity contributed to risk awareness, which informed lifestyle choices, such as stockpiling, as strategies to avert risk.

Whilst fatalism and a reliance on external supernatural forces, in both the attribution of blame for misfortune and in assisting or hindering risk management, was a dominant discourse, this was not an absolute value but rather one discourse or element of a broader worldview and risk framework. Individuals often expressed their vulnerability to risk using God's will as a metaphor for powerlessness in a harsh environment. But God's hand was also considered instrumental in exposure to, or protection from, risks deemed individually uncontrollable and unpredictable such as illness and the lack of rains. The initial attribution of ill health to the hand of God or nature has been widely acknowledged (Vaughan 1991). Faced with regular misfortunes, individuals also drew on ancestral spirits. The role of luck or chance was another common discourse in both explanation and prevention of misfortune, most commonly in describing events such as bicycle or road accidents but also for unplanned pregnancies. In other words luck or chance was a convenient discourse for interpreting events deemed otherwise uncontrollable.

By framing risk perception through the dualism of risk and misfortune, where risk refers to the possibility of future negative events, and misfortune negative events which have already occurred, I have been able to explore the interplay of the past, present and future in risk perception and to highlight the existence of multiple discourses for explaining and managing each.

9.2.4 A focus on health risks

In chapter 8 I focused on the position of health risks within the broader risk landscape. I showed that illness was considered to be an inevitable and common occurrence but that regular exposure did not necessarily translate to heightened risk awareness or to strategies implemented to avert the risk. Some illnesses were normalised to the extent that they were

seen as natural components of everyday life. Despite this there were *many strategies for risk avoidance towards health risks* but the routinisation of these made them less subject to articulation during the research. These included for example, attendance at routine vaccination programmes for children for diseases such as measles, strategies for maintaining hygiene such as hand washing and sweeping the yard and attendance at ante-natal care clinics.

I demonstrated that for many individuals prevention was interpreted as early treatment seeking, suggesting that there was little conceptual distinction between 'prevention' as understood by health professionals, 'self-protection' and 'minimising negative consequences'. Such a distinction in emic and etic understandings of prevention has implications for health promotion and may explain some of the failure of interventions designed to promote prevention. Since ill health was often considered an unavoidable component of everyday life, individuals reasserted control through treatment seeking. Treatment seeking was a process embedded within a syncretic medical system subject to the multiple modernities and traditions which co-existed in the research communities. Given that decisions regarding treatment were perceived to be the controllable element of ill health, many people emphasised the risks they considered inherent in treatment seeking choices. These choices were dependent on a range of factors which included symptom interpretation, perceived aetiology and an individual's perception of their own level of social vulnerability at the time of illness. Other structural factors included considerations of accessibility and perceptions of quality in the respective treatment options available.

Once experienced, illness was subject to a range of explanatory models which drew on the social context in which the illness was experienced. Illness could be defined as biological or supernatural but frequently it was an embedded experience subject to a constant process of re-definition following re-diagnosis through treatment seeking. Illness narratives were

created which drew on the stage of illness and treatment seeking behaviour, the context in which the explanation was being given and the broader social context. Perceptions of aetiology were fundamental to both assessments of risk with regard to the illness in question and to preventive and treatment seeking behaviour. In fact, the need to understand aetiology was often shaped by the outcome of the illness, and death or severe disability often led to a need to define cause and seek explanation.

I showed how the ultimate cause of an illness was often considered to lie within the realm of social relations, and that perceptions of the risks to health entailed within a breakdown of these social relations made the maintenance of healthy social relations a fundamental strategy for the prevention of ill health. There was thus a conceptual link between the avoidance of social risks and that of health risks. Whilst routinised behaviours in the maintenance of social reputation often contributed to a reduction in exposure to health risk, health risks could also be exacerbated as a direct consequence of the dominance of social risk awareness.

Despite the range of strategies adopted to avert the consequences of exposure to health risks, these were the substantive risk category most subject to a fatalistic discourse. Other evidence from ethnographic research has shown that rather than being a general discourse applied to all illnesses, this is usually linked to specific illnesses given specific social conditions. Earlier work on health promotion in non-western contexts has tended to pit local communities, with an atavistic culture of fatalism, against health promoters (foreign and local biomedical professionals or development planners), who held strong beliefs in the management of lifestyles and risks. Anthropological work on seemingly 'irrational' beliefs and practices relating to illness, such as stigma (Mahajan, Sayles et al. 2008), personalistic explanations of illness, or fatalistic outlooks in relation to development, have shown that these are often problem-specific discourses rather than cultural idioms and that

they tend to reflect powerlessness rooted in socio-economic disadvantage (Farmer, Lindenbaum et al. 1993). Such perceptions of futility and a reliance on fate in the control of individual health is certainly not exclusive to either the community in this study or indeed, non-western contexts (Davison, Frankel et al. 1992; Sherine 2009). However, given the precarious nature of life in a vulnerable environment, the extent of such perceptions may actually be founded in the desire to absolve onself from the responsibility of failure. Thus, whilst individuals demonstrated a range of strategies driven by their need to avert illness and control the uncontrollable, ultimately their attribution of illness to a supernatural agent absolved them from the burden of mis-diagnosis and risky treatment seeking choices.

The following section addresses the main objective of this research: to identify risks considered salient and to investigate perceptions of and discourses influencing this salience in rural Tanzania. In doing so, I draw some theoretical conclusions in an attempt to contribute to the broader field of risk perception research.

9.3 'Risk moments' as a useful concept for understanding risk perception

One of the aims of this research was to identify the discourses which influenced which risks were salient to lay populations. Trostle (2005) described this process in our understanding of health related behaviour as 'lay epidemiology', since it emphasised '*the validity of local knowledge about risk, knowledge that puts risk in context*' (Trostle 2005). He also suggested that individual reaction to this knowledge was subject to a purely cognitive, rational actor approach. He cited Frankel *et al* (1991) who defined lay epidemiology as '*a scheme in which individuals interpret health risks through the routine observation and discussion of cases of illness and death in personal networks and the public arena, as well as from formal and informal evidence arising from other sources*',

(Frankel, Davison *et al*. 1991). By emphasising the discourses which *'render risk calculable and knowable, bringing it into being',* (Lupton 1999a) and which facilitate the dynamic and contingent process of framing, this thesis has contributed to a deeper understanding of lay epidemiology. In so doing, I have also responded to Caplan's call for the creation of an ethnographic method which explores risk '*at a particular time in a particular place and through the voices of particular informants*' and situates this within the wider framework of the social context (Caplan 2000).

In analysing the research data I identified a series of multiple, and sometimes contradictory, discourses which shaped individual perceptions of risk at particular moments in time. These discourses exist as part of collective culture and shape how individuals see and interpret the world. Individuals draw on competing discourses in different circumstances. This process is sometimes conscious but often subconscious in the prioritisation of risks but is always relevant to the wider circumstances in which risk is experienced. This suggests that individual risk perception, as well as how individuals respond to particular risks, is not fixed or concrete but rather fluctuating and ephemeral and attached to specific moments in time and place. I define these as a series of 'risk moments' which are dynamic, context specific and contingent on particular social conditions. This concept can be applied to both risk and misfortune, since at any one moment a particular reaction to a particular misfortune will dictate the unfolding of a different outcome. Thus all misfortunes are 'risk moments'. This is a useful concept to understand how people experience the world and respond to it, in particular how they frame perceptions of risk, demonstrated in this study as subject to pluralistic, contradictory, though equally valid discourses. This concept more usefully applies to the response to a hazard rather than the prevention of a hazard, since prevention is less contingent, and more consistent, than the immediate response to a hazard.

Whilst I have emphasised the contingent nature of risk perception in general there are also certain hazards which may be responded to in a consistent way. In other words, why are responses to some hazards dependent on framing and context and thus contingent, and other responses immutable? What determines the extent to which a risk response varies? I consider these questions briefly by drawing on the research data and argue that three kinds of response to risk can be distinguished. The first involves those risks which can be defined as invariable and predictable. The response to the 'risk moment' is either immediate or the action is routinised and subconscious. Examples from the data include snakes, traffic accidents and hand washing before meals. The second category contains risks towards which responses are variable, but the way in which they vary is predictable. For instance responses might be patterned by individual social position. Examples in this category include agricultural risks such as food shortages, loss of income and income diversification as a risk response. They also include malaria for which I described the more affluent and better educated as using bednets routinely at home but not during social occasions such as funerals. The final category is that of risk responses which are variable and unpredictable, in other words largely random, at least given our current understanding of the social construction of risk perceptions. In this category it would be difficult to predict which individuals would respond in which ways to a particular risk. One example in this last category is that of witchcraft. Individuals are never quite sure when they may be accused of witchcraft, as the example of Patience cited in Chapter 7 demonstrated. Nor are individuals ever satisfied that they have controlled their exposure to witchcraft since it is situated within ambiguous social relations. This ambiguity creates multiple, random risk responses to accusations and attributions of witchcraft.

There are obvious limitations to the extent of this analysis given that it was not included in the original research design. The duration of the participant observation was also a limiting factor and some beliefs and behaviour may require a prolonged research period to

be discerned. Further research would be required to test the validity and replicability of this hypothesis for 'risk moments', but I suggest that the concept and the questions posed by this concept, of whether particular risks are always responded to in particular ways, are useful approaches to framing risk perception research more broadly, since risk is subject to multiple, often contradictory, discourses.

A recent systematic review of HIV interventions published in the *Lancet* concluded that changing individual behaviour was central to improving sexual health, but that broader determinants of sexual behaviour such as those that relate to the social context need to be addressed (Wellings, Collumbien *et al*. 2006). Furthermore, in her ethnography of risk and motherhood in north-western Tanzania, Allen suggested that insufficient attention has been paid to the heterogeneity of women's experiences of motherhood and risk (Allen 2002). This research contributes to the contextualisation of HIV risk through an understanding of the wider discourses that affect heterogeneous risk perceptions and subsequently, individual behaviour. I have suggested that understanding perceptions of other risks is integral to understanding attitudes and actions towards HIV, which has often been distanced from this discursive risk landscape through processes of medicalization and objectification as a biomedical disease (Seidel and Vidal 1997). Accordingly, this thesis was less concerned with the place of HIV within the risk landscape than with delineating the characteristics of the landscape itself.

The results from this research have confirmed the contingent nature of risk perception and identified the particular discourses which shape the way in which risk is perceived and understood. It has also contributed to our knowledge of people's approaches towards health risks and understandings of prevention which may be useful in the design of appropriate behaviour change campaigns. In applying Western theory and deductively testing the relevance of Mary Douglas to a non-western context, I have provided evidence

that what is known and accepted about risk at a higher theoretical level is as relevant in the context of a rural African village as it is in developing countries, but that it is enacted differently. I approached this research with doubts as to whether risk was indeed a relevant concept to people in non-western contexts. I conclude the study convinced not just of its relevance but of its integral role in shaping the future in social worlds coloured by ambiguity and in which multiple forms of tradition co-exist syncretically with multiple expressions of modernity, necessitating both resignation and adaptation to risk.

Appendices

Appendix 1: Focus Group Discussion checklist

1. Can you all tell me something about the social life of the village?
   [social groups/ rikas/weddings/funerals] [Within family /neighbourhood /mtaa /kitongoji /village/ward] [Obligations/pressures/jealousies]

2. What recent social events in the village do you remember and why are they memorable?

3. What recent accidents/jangas or maafa have occurred in the village and why do you remember these in particular?

4. What type of people do you most respect in the village and why? Provide examples and discuss why one is respected more than another

5. Which people in the village do you think lead a modern life and which don't? What is the opposite of a modern life? What material possessions indicate having a modern life?

6. What do you all worry about most? Why?

7. What things do you worry about less and why?

8. What does the word 'hatari' mean? What does the phrase 'uwezekano wa hatari mean? Can you give me any other words that refer to this idea in Swahili or Sukuma?

9. What things/activities/beliefs do you consider to be risky or dangerous and why?

10. Do you think risks are different for men and women? How are they different? Should they be different?

11. Do you think risks are different for different age groups? How are they different? Should they be different?

12. What else is risky in your environment?

[Physical risks: health, natural, environmental, animals/ Social/Economic Risks: Social status, livelihoods, reputation, jealousy, witchcraft, deception, family relations/ Supernatural risks: religion, church attendance, ancestors, spirits]

Appendix 2: In-depth Interview topic guide

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1. Explanation of interview/informed consent form/reading of info sheet
2. Thank the participant for agreeing to take part
3. Ask if she has any problems/questions she would like to ask/discuss before we start
4. Check the recording equipment

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5. Ice-breaking Introductory Questions

Examples:

- Recap on common acquaintances
- Questions re children/family
- Questions re residence e.g. have you always lived here?

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6. Description of house

   [Probes: location/access to water/type of construction/number of buildings/physical surroundings]

7. Description of agriculture/crops/land/size of land

   [Probes: cash/subsistence crops/size/location of land/livestock]

8. Description of household members and roles

   [Probes: relationship to each/age of each/background and role of each/how many people sleep in how many rooms]

9. Description of respondent's children

   [Probes: ages of each and fathers of each/details of pregnancies/miscarriages/deaths of children/age of first pregnancy and status at time of first pregnancy]

10. Description of income-earning and decision-making in household

    [Probes: main income-earner/occupations of household members (formal and informal)/contributions of each/ how often the family eats, seasonality of food consumption/migration/travel/church]

11. What are your happiest memories as a child?

    What were your best experiences as a child?

What are your worst memories as a child?

What were your worst experiences as a child?

What were you anxious/worried about as a child?

Can you remember any particular childhood illnesses you suffered?

12. What did your parents want for you in life?

    [Probes: what did they do to help achieve this? What were their concerns about you? How did this differ from your siblings (male/female)]

13. Tell me about your social life

    [Probes: when do you get a chance to laugh/joke with other women?/how much of your work is alone/ with women/ with your husband/with your family. Membership of social groups/role in funerals/marriages/ cultivations /celebrations /church. Discuss particular social events and his/her role in them]

14. Recent emergencies/accidents/unplanned events in the family

    [Probes: why do you think this happened/could it have been avoided/have you changed things since then/what did you do to react to it/when did it happen/to whom did it happen. Probe for illnesses, of whom and how they dealt with them, what questions these raised etc]

    [Use terms – hasara (loss), janga (catastrophe), afa (misfortune)],

15. Worries/fears/concerns

    [Probes: Are there times when you get worried about things?/ What things do you worry about?/ What is the last big thing that worried you?/ What are your current worries?/ Which things do you worry about more?/ Which things do you worry about less? (Details for all and who concerning)]

16. Do you ever worry about your child/children?

    [Probes: In what ways do you worry about them?/ (Reputation /marriage/ work) / If your child didn't come home after going to get water, would you be worried, what would you think could have happened?]

17. In 20 years time, what would you like for your children?

    [Probes: (see whether appropriate in village setting?) health/ wealth/ happiness/ concerns about plausibility of occurring]

18. What activities do you encourage and discourage your children from doing?
    [Probes: Why do you encourage/discourage them? (respectful behaviour/ hazards)]

19. What do you consider to be dangerous/risky? [uwezekano wa hatari]
    [Probes: why do you consider it to be so?/ what do you do to prevent the danger/risk?/ how is it dangerous/risky? For yourself, for your children etc.]

20. Please rank the risks you have raised in order of their importance to you. Please rank the list of abstract risks in order of perceived importance to you (for this may need to raise other risks not raised in interview).

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21. Probe for specific risks (not mentioned in interview)

Physical risks	health, natural, environmental, animals
Social/Economic risks	social status, livelihoods, deception, family relations
Supernatural risks	religious, church attendance, ancestors, witchcraft, jealousy etc…

22. End the interview thanking them for their time and asking if they have any more things they would like to say or any questions they would like to have answered

Appendix 3: Information Sheet

National Institute for Medical Research, Mwanza, Tanzania

Medical Research Council Social and Public Health Sciences Unit, Glasgow, UK

WHO FUNDS THIS RESEARCH?

This project is a collaboration between the National Institute for Medical Research (NIMR) in Mwanza, Tanzania, and the Medical Research Council Social and Public Health Sciences Unit in the UK. It is funded by the Medical Research Council in the UK.

WHAT IS THE RESEARCH FOR?

The main aims of the study are to find out:

- what dangers people in your ward are most worried about
- why some dangers are more important to you than others
- what people do to avoid particular dangers and why

WHY IS THIS RESEARCH IMPORTANT?

As you probably know, there have been many health and development projects in Mwanza Region in the past few years. Some of these have been successful, others less so. One reason for this is that outsiders do not always understand the way of thinking and the concerns of people in Mwanza Region. I feel it is important to understand what you think and do about particular problems and dangers. I hope that this research will help make future projects in Mwanza fit with your way of life, and relate to the problems that are most important to you.

WHO AM I?

As many of you already know, my name is Nicola Desmond. I am from England originally but I have been living in Mwanza for 4 years working as an anthropologist with the National Institute for Medical Research. The work that I am doing in your ward is for my PhD studies and at the end I will write a thesis (book) about what I find. I usually live in Mwanza with my husband, who also works at the National Institute for Medical Research and our 20 month old son, Samuel but I will be spending much of the next 6 months in Barakijiji with you.

WHY BARAKIJIJI?

The project will be carried out in your ward. I have chosen your ward for several reasons:

1. NIMR advised me that this is a friendly part of Mwanza Region where people are willing to help with research.
2. The ward has a mix of traditional farming, road-side settlements and fishing activity, so it contains much of the variety that exists across the Region.
3. Your ward is the ideal size for this research: I can get to know as many of you as possible in the next six months.
4. And finally: you have made me feel very welcome, and I thank you for that.

WILL THERE BE ANY DIRECT BENEFITS TO YOU?

This research will not be of 'direct' benefit to your ward: for example, it will not change your access to health or education services, or lead to financial benefits. However, I hope that what I learn will be passed on to those who design health and development projects throughout Mwanza Region. The intention is that future projects should take into account the concerns of villagers. This will make such projects more useful to you.

WHAT WILL I BE DOING?

I will be living in your ward for 6 months. During this time I hope to be able to get to know many of you personally. I want to talk to you informally, but I would also like to interview some of you. I want to learn about your lives and why you do the things that you do. I also want to try and participate in everyday activities with you. Anything that we may talk about, both in interviews and in everyday situations, will be helpful in answering the questions I am asking.

WHAT WILL I DO WITH THE THINGS YOU TELL ME?

Please be assured that any information you give me will be kept completely secret. I may use some of the information you give me in my thesis and in reports. However, your name will be removed so that people will not be able to identify you.. I will not tell anybody else I talk to about what I have discussed with you, unless you have agreed for me to do so. If you are not happy to talk to me then please let me know, and I will not ask you to participate.

PLEASE ASK ME…

Please ask any questions you have about me or about the research. I am happy to share my experiences with you, just as I hope you will be happy to share yours with me.

I am looking forward to working and living with you all.

Appendix 4: Participant Consent form

National Institute for Medical Research, Mwanza, Tanzania

Medical Research Council Social and Public Health Sciences Unit, Glasgow, UK

1. I have received and read the information sheet provided by Nicola Desmond explaining the reasons for her living and working in my village.
2. I have read, discussed and understood the purpose of the research.
3. I have asked all the questions that I have about the research and feel that I have enough information about it.
4. If I agree to participate in this interview I understand what I will be asked to do.
5. I also know that anything that I say will be kept secret and anonymous.
6. I know that I have the right to stop the interview at any time or to refuse to answer questions if I do not want to.
7. I understand that if I do not want to take part in the interview. I may still be asked to take part in other interviews.

8. **I agree to take part in this interview.**

Name (in capital letters)	Signature or Thumb print	Date & Staff Code

Appendix 5: Overview of empirical studies of risk

Theoretical approach	Main grand/ meso-theory	Overview of method	Type of risk	Author/Date
Deductive	Douglas	Qualitative	HIV	(Douglas and Calvez 1990)
Deductive	Douglas	Qualitative	HIV	(Wight 1999)
Deductive	Douglas	Qualitative	Workplace hazard & road safety	(Bellaby 1990)
Deductive	Beck	Qualitative	Voluntary risk-taking	(Tulloch and Lupton 2003)
Deductive	Beck	Qualitative	Drugs (Prozac)	(Moldrup and Morgall 2001)
Deductive	Douglas, Beck & Giddens	Qualitative	Genetic screening	(Shaw 2000)
Deductive	Douglas	Quantitative	Democracy	(Shin, Chey *et al*. 1989)
Deductive	Douglas	Quantitative	General Risk	(Xie, Wang *et al*. 2003)
Inductive	Risk & trust	Qualitative	HIV	(Bujra 2000)
Inductive	Risk & power	Qualitative	HIV	(Day 2000)
Inductive	Risk & trust / gender	Qualitative	HIV	(Haram 2005)
Inductive	Douglas, Beck & Giddens, knowledge construction	Qualitative	BSE & Beef consumption	(Caplan 2000)
Inductive	Beck, Giddens, Douglas	Qualitative	Voluntary social risks	(Lupton and Tulloch 2002)
Inductive	Douglas, Beck, gender & social reputation	Qualitative	Family & social risks	(Vera-Sanso 2000)
Inductive	Beck, agency & blame	Qualitative	Army & ceasefires	(Killworth 2000)
Inductive	Douglas & Foucault	Qualitative	Biosecurity	(Collier, Lakoff *et al*. 2004)
Inductive	Douglas, Beck & Giddens, control & risk	Qualitative	Genetic inheritance	(Finkler 2003)
Inductive	Douglas & Beck, temporal pattern of risk, experience	Qualitative	Infertility	(Becker and Nachtigall 1994)
Inductive	Beck, Giddens & Douglas	Qualitative	Diabetes	(Cohn 2000)
Inductive	Risk & experience, social position	Qualitative	Gold mining	(Gratz 2003)
Inductive	Douglas, Foucault, lay and expert perceptions	Qualitative & Quantitative	Road transport & safety	(Bellaby and Lawrenson 2001)
Inductive	Expert/lay, abstract/concrete risks	Qualitative & quantitative	Health	(Burton-Jeangros 2000)
Inductive	Douglas, Beck & Giddens	Quantitative	Childhood vaccinations	(Burton-Jeangros, Golay *et al*. 2004)

Appendix 6: Final coding schedule

Tree Nodes

1. Research Methods

1.1 Participant Observation
1.2 IDI
1.3 FGD
1.4 Background data
1.5 Reflexivity/rapport/personal experience

2. Substantive Risks (Types)

2.1 Social risks *(jealousy, sexuality, reputation, family relations, clan relations, behavioural deviance)*
2.2 Supernatural/metaphysical risks *(witchcraft, religion, ancestors, spirits, sorcery, fear of the future)*
2.3 Health risks (*disease, illness, mental/physical disability, drugs and drink*)
2.4 Risks associated with motherhood and children
2.5 Environmental risks *(animals, weather, water, hygiene, lack of adequate toilet facilities, car accidents, lake accidents, crop failure, agriculture, ticks, hyenas, snakes, rains)*
2.6 Economic Risks (*livelihoods, income, work-based risks)*
2.7 Underdevelopment *(perceived as risks and linked primarily to development e.g. education, poverty)*
2.8 Etically defined dangers (*defined in literature or by ND)*

3. Social Organisation & Stratification

3.1 Education/schools/school environment
3.2 Political/government (local & national)
3.3 Ethnicity (non-sukuma)
3.4 Locations (urban/rural/public/private)
3.5 Respect/social position (*may or may not be linked to income)*
3.6 Macro-forces (external/historical/locally uncontrollable

4. Lifestyles

4.1 Modern lifestyles (emic definitions/emic indicators)
4.2 Travel/migration
4.3 Religion/beliefs/traditions/customs
4.4 Social capital/social life/social networks/social relationships/social events (e.g. weddings, funerals, ngomas)
4.5 Children & youth lifestyles (age 0-26)
4.6 Sexual behaviour/respectability/sexual partner types/definitions

5. Occupation/Livelihoods

5.1 Occupation/working environments/livelihoods
5.2 Income/wealth/poverty/material possessions
5.3 Agriculture/shamba/rikas/crops
5.4 Fishing/lake

5.5 Livestock/Animal Husbandry

6. Family & Home

6.1 Family size/type of marriage/family relationships
6.2 Housing/home environment
6.3 Gender Issues/Roles
6.4 Childcare/childbirth/motherhood/fatherhood

7. Health

7.1 Health-seeking behaviour/treatment seeking/health service provision
7.2 Illness/abnormalities/death/accidents

8. Developing theory

8.1 Control/lack of control
8.2 Predictability/unpredictability/Certainty/Uncertainty
8.3 Knowledge/risk awareness (including the pursuit of knowledge)
8.4 Risk calculation/assessment
8.5 Risk aversion/minimisation strategies/risk taking
8.6 Normalisation/saliency of risks
8.7 Experiential based risk perceptions
8.8 Risk division (by gender/age etc.)
8.9 Risk perception by social position
8.10 Risk perception by influence of locally defined 'modernity'
8.11 Miscellaneous theory development
8.12 Emic meanings of terms

9. Unresolved data (including anomalies & ambiguities)

Appendix 7: Socio-demographic details of forty informants

Pseudonym	Sex	Village	Church	Ethnicity	Family	Travel	Education	Occupation	Age
Oliver	m	Barakijiji	AIC frequent	Sukuma	married, 7 children	Seldom	Std 4	Farmer - Sub-village Chairman	65
Nicolas	m	Barakijiji	RC frequent	Sukuma	married, 9 children	Seldom	Std4	Sungusungu leader / Farmer	58
Daudi	m	Barakijiji	Pagan	Kerewe	divorced, 2 children	Infrequent - work	Std 7	Traditional healer	37
Kundi	m	Katijiji	Pagan	Sukuma	married, 6 children	Infrequent - work	Std 7	Traditional healer	43
Ricardi	m	Barakijiji	RC infrequent	Sukuma	married, 4 children	Seldom	Std 4	Machine repairer	54
Jonas	m	Shambajiji	AIC frequent	Sukuma	married, 1 child, 1 adopted	Seldom	Std 7	Farmer	50
Edward	m	Barakijiji	AIC infrequent	Sukuma	married, 2 children	Regular	Form 4	Radio journalist	34
John	m	Barakijiji	RC infrequent	Sukuma	Married, 2 children	Regular - work	Std 7	Fisherman	29
Wilfred	m	Shambajiji	RC infrequent	Sukuma	married, 6 children	Seldom	Std 4	Ngoma player & farmer	55
James	m	Shambajiji	RC infrequent	Sukuma	married, 6 children	Seldom	Std 7	Farmer	44
Bernard	m	Barakijiji	AIC frequent	Sukuma	married, 3 children	Infrequent	Form 4	Teacher	52
Medard	m	Barakijiji	AIC leader	Sukuma	married, 6 children	Frequent	Theological College	Pastor of AIC	40
Jackson	m	Shambajiji	AIC infrequent	Sukuma	married, 5 children	Infrequent	Std 7	Farmer	56
Zachayo	m	Barakijiji	Baptist infrequent	Sukuma	married, 7 children	Seldom	Std 7	Farmer/Village Chairman	45
Denis	m	Shambajiji	Pagan	Sukuma	married, 7 children	Locally frequent	Std 7	Farmer/Village Chairman	38
Arnold	m	Barakijiji	Islam infrequent	Sukuma	married, 3 children (1 died)	Frequent for business	Std 7	Farmer/market gardener/shop owner	28
Jalaad	m	Barakijiji	Islam infrequent	Sukuma	married, 5 children, 2 dead	Seldom	Std 7	Carpenter	32
Lucia	f	Barakijiji	AIC frequent	Sukuma	Widowed, 3 living children	Seldom	None	Farmer	65
Patience	f	Barakijiji	Born Again	Sukuma	Widowed, living with grandchildren	Seldom	Std 4	Unemployed	68
Maria	f	Barakijiji	RC frequent	Nyamwezi	Widowed, polygamy, living with children	Seldom	Std 7	Landlord	50
Hope	f	Barakijiji	Born Again	Sukuma	Divorced, lives alone	Seldom	Std 7	Farmer	50
Naomi	f	Barakijiji	AIC frequent	Sukuma	Married, 5 children, 2 children from previous	Infrequent	Technical College	Business	42
Leonie	f	Barakijiji	RC infrequent	Sukuma	Married, polygamy, 3rd wife, 3 children	Seldom	Std 7	Rice selling	31
Wilamena	f	Shambajiji	RC infrequent	Sukuma	Married, 7 children	Seldom	Std 7	Farmer	31
Eliza	f	Katijiji	AIC infrequent	Sukuma	Single	Infrequent	Form 4	Unemployed	24
Mariam	f	Barakijiji	RC frequent	Sukuma	Married, 7 children	Seldom	Std 7	Farmer	35

Pseudonym	Sex	Village	Church	Ethnicity	Family	Travel	Education	Occupation	Age
Rachel	f	Barakijiji	RC infrequent	Sukuma	Single with partner (s)	Infrequent	Form 4	Barworker	23
Loveness	f	Barakijiji	SDA frequent	Kerewe	Divorced, 2 children	Infrequent	Std 7	Wood seller - business	34
Pendo	f	Shambajiji	AIC frequent	Sukuma	Married, 5 children	Regular	Std 6	Farmer	54
Serafina	f	Barakijiji	RC frequent	Sukuma	married,	Regular	Std 7	Seamstress	36
Teresa	f	Barakijiji	RC frequent	Sukuma	Married, 1 child	Infrequent	Std 7	Sells local beer	44
Lemmy	f	Shambajiji	AIC never	Sukuma	Married, 8 children	Never	None	Farmer	38
Dotto	f	Katijiji	AIC frequent	Sukuma	1st wife, polygamy, large family	Seldom	Std 4	Farmer	65
Nenette	f	Shambajiji	AIC frequent	Sukuma	married, 0 children, 2nd husband	Seldom	None	Farmer	52
Agnes	f	Shambajiji	RC infrequent	Sukuma	married, 9 children	Seldom	Std 3	Farmer	52
Thalia	f	Barakijiji	Islam frequent	Nyamwezi	Divorced, 4 children, 2 died young	Seldom	Std 3	Farmer/fish business	51
Tabitha	f	Barakijiji	SDA frequent	Sukuma	Married, 0 children, 1 died	Infrequent	Form 4	Retired Village Chairman	52
Paulina	f	Barakijiji	AIC infrequent	Sukuma	single, children	Seldom	Std 7	Barmaid	30
Mary	f	Barakijiji	RC infrequent	Sukuma	widowed, 2 children	Never	None	Rice ends seller	54
Zena	f	Barakijiji	Islam frequent	Sukuma	married, 5 children, 2 dead	Seldom	Std 7	Runs small shop with husband	30

Appendix 8: Framework for risk analysis

N.B. Due to the size of this framework, I have included only two examples from the 40 informants included in the analysis

		Mariam	Pendo
Age		35	47
Village		Barakijiji	Shambajiji
Education		Standard 7	Standard 6
Occupation		Farmer	Farmer
Church		RC regular	AIC regular
Marital Status		Married	Married
Number of children		7	6
Ethnicity		Sukuma	Sukuma
Travel		Seldom outside of the village, only to attend funerals or events though rare, e.g. attendance at wedding in Igoma	Regular to Mwanza and locally to attend meetings, also less frequently to Bukoba
House construction		Family owns houses. All 3 houses constructed of mud bricks and thatch except one which has corrugated iron roof, this latter is in danger of falling down and roof held on with stones, walls held up by tree trunk	Family owns compound. One house constructed of burnt bricks and corrugated iron roof, others on compound all of mud bricks and thatch
Cattle owner		No	Yes
Social reputation		Wife of MK, gives her a complex social role exposed to jealousy but also respected, member of fundi microfinance group	Member of village government, care of village orphans, self-help groups, chairperson of microfinance group, HIMA (women's development group)
Type of risk perception		No blame for fathers illness and consequent inability to continue with studies 'it was God's will'	
Fears for children		Embedded in IDI, wants children to do well in education but feels incapable of doing anything to help them (uncontrollability)	
Risks in situ	**HIV**	Embedded in PO, uchawi more dangerous than ukimwi as all curses cannot be cured and results can be social exclusion which is+C16 more dangerous (??) . Embedded in IDI that may give birth to HIV positive baby (doesn't trust her husband). Embedded in PO Spoken to eldest son about the need to use condoms, this may have been provoked by her own sense of risk as a result of her husband's infidelity. Some direct experience as cousin died of HIV, also mentions in abstract in IDI and states her reason is her lack of trust in her husband who has already proven himself unfaithful	Embedded in IDI, considered risky as due to individual behaviour, due to lust, Abstract in IDI, this disease, HIV
	STD		
	Theft	Embedded in PO wrt crops, difficult to prevent from land, stealing from middle of field so unnoticed for longer, stored food stolen from her store during times of hunger, discovered bag with neighbours long time after food had gone	Abstract in IDI fear that cattle will be stolen at night, but do nothing to prevent this risk

		Mariam	Pendo
	Fighting		
	Rape		
	War		
	Murder		
	Poison		
	Infidelity/men with more than one partner/wife/adultery	Embedded in PO when discussing STD consequences of her husband having been with another woman, also unfaithful women loss of reputation and term ***shihani*** used to describe woman who cuckolds her husband, but if man discovers then often partner will pay him for the use of his wife, they don't lose face, only the woman who will need to spend long time re-establishing her reputation which she can do after long time	
	Women giving birth at Katijiji /bad health services	Embedded in IDI, Katijiji health centre used to treat patients well and so it used to be used regularly by local community, she gave birth successfully at Katijiji but decided with next birth to do at home as too late to get to hospital when labour pains started and more afraid to give birth on the road than at home	
	Drunkenness		
	Hunger/lack of rains	Embedded in PO, causes food prices to increase which causes hunger in combination with crop failure & family break-ups, embedded in IDI lack of rains and how this influences what crops they grow, in this case cassava and maize, 'its just a game of chance, '*ni kubahatisha tu*'	Embedded in IDI, planting crops in these years of drought is always a game of chance (*kubahatisha*), Abstract in IDI, hunger
	Risk of selling crops with low profit		
	Lack of area to cultivate		
	Convulsions		
	Spirit houses - large and small		
	Witchcraft and Witchcraft related illness	Embedded in PO, prays every night before sleeping which protects her from *uchawi* but also protected by ancestors. Also warned me of who I was visiting and to be careful, Embedded in IDI when discussing childhood and fears as told stories by grandmother about 'witches' BUT rumour is that her grandmother was a witch herself, still afraid to go out at night today, wonders whether her miscarriage was caused by witchcraft	Embedded in PO & IDI, believed this was cause of her having lost 5 of her children and her having problems with pregnancy. And attacked by witches regularly when a child, these were related to her mother, thought she was beautiful and light-skinned and wanted her as an *msukule*. But doesn't fear it as normalised and can do nothing to prevent it
	Slashing with *pangas*		
	Refusal to become a healer		

		Mariam	Pendo
	Relocation due to social problems		
	Social Gossip	Embedded in PO , No secrets in Barakijiji	
	Independence of women e.g. bicycles for husbands		Embedded in IDI, 'He gets problems because they just shout at him that he is degraded, when he walks around they just sneer at him that he is degraded, that his wife just goes here and there to look for men there as if they have ever seen me having men outside there.'
	Jealousy	Embedded in PO, *minyaa* placed at door as she suspects from jealousy, also accusations of theft she claims due to jealousy, also blamed neighbour's jealousy on previous illness and why her husband threw her out of the house and took another woman, woman had wanted her to marry her daughter and so bewitched her, also difficult to live close to neighbours as always jealous this is reason for curtains covering doors	Embedded in IDI, she knew she had been taught a lesson by her cousin who had bewitched her so she would lose full-term babies after sitting on a chair to peel cassava, they thought she had been arrogant because she hadn't slaughtered a chicken for them when they visited. Jealousy also prevents development
	Family disputes over land/ inheritance of land by wives		
	Living alone		Embedded in IDI, fear of being alone as has no siblings, though mitigated by strong family connections with husband and children and grandchildren
	Mourning over death of disabled person		
	Mchango	Embedded in PO, different types affecting male and female differently, treated through traditional medicine, can be caused by type of bird which flies overhead a young breastfeeding child, eldest child suffered from *mchango*	Embedded in IDI, infection with *mchango* caused problems in addition to bewitchment resolved with use of traditional medicine temporarily so could give birth to her last born
	Injections when have mchango/witchcraft		
	Selecting between bio and trad med seeking	Embedded in PO with experience of treatment seeking to seek cure for her problems, also causes of decisions include traditional vomiting & diarrhoea but often biomedicine first, also swelling of legs and stomach, biomedicine first as if organism then needs to be killed quickly but if curse, effects are more prolonged so treatment can afford to be delayed	Embedded in IDI, danger of injections in hospital when suffering from *manjano*, sister died
	Reading books		

		Mariam	Pendo
	Small accidents		
	Bedbugs/Siafu/Insects		Embedded in PO, I was told not to sleep on bed of son because of bedbugs until it was cleaned, but at same time lets someone sleep on it
	Vomiting & diarrhoea		
	Malaria	Embedded in IDI, cerebral malaria prevented her from attending school for a month	
	TB		
	Pneumonia		
	Defecation in shamba		
	Cultivation without shoes	Embedded in PO when discussing alongside her husband the dangers of hoeing without shoes	
	Hyena attacks/ wild animals/cattle grazing/crocodiles		Embedded in IDI, not a normal occurrence though, happened quite by chance
	Snakes/Insects		
	Bird flu		
	Animal illness/disease		
	Dirty water		Embedded in IDI, drink water from well not tap as tap is too salty, no concern about risk only taste and thirst
	Tick fever		
	Unripe cassava		
	Not taking part in community life/outsiders	Embedded in IDI, dangerous to not contribute to community events as if not there is no social gesture to be reciprocated, Embedded in IDI, dangers of social isolation if you don't take part in community events such as funerals no one will come to assist with yours	
	Trusting too easily	Embedded in PO, trust no-one other than *ndugu* since can be deceived if trust too easily	Embedded in IDI, warning me regularly about danger of eating at certain people's homes

		Mariam	Pendo
	Not sharing food when asked	Embedded in PO, told not to refuse if someone asked for something, particularly Lucia	Embedded in IDI, not having slaughtered a chicken on relatives visit caused accusation of her arrogance and consequent bewitching and loss of 4 children
	Divorce for children/death of mother/death of parents	Embedded in PO, her husband lived with his paternal grandparents and didn't see his mother again until he was an adult	Embedded in PO & IDI, death of mother meant stepfather remarried. Had had good relationship with stepfather who had said he would share wealth but on remarriage he changed towards her and refused to share wealth. Also father remarried and stepmother used to beat her and lock her up and blame her for things which weren't her fault
	Long distance to travel to school		Embedded in IDI, resulted in beatings at school and punishments which meant late getting home which in turn meant she was beaten by parents for being late at home
	Inability to have children for women	Embedded in PO, worries for women who can't have children says will allow husband to have another wife so they can take one of the children though this is also risky, common practice for ***ngumba*** or *tasa* (sterile/barren) women, own memory of her having had a miscarriage and lost a child	
	Risks of FP methods		
	Unwanted pregnancy		
	Giving birth with traditional midwives		
	Burying a foetus or incomplete child in a graveyard		
	Women being beaten by husbands/children being beaten by parents or at school		
	Forced early marriage		

		Mariam	Pendo
	Success	Embedded in PO, difficult to show success in small community, jealousy and exposure to harm as a result, brother cited as example, suggests cause of accusations of witchcraft towards her mother, says *'huko kijijini hakitaki kwamba watu waendelee'*, embedded in IDI, difficulties of being a community leader and exposure to jealousy of others and accusations of malpractice	Abstract in IDI, if people see that you have money they will be jealous and may attack you
	Poverty	Abstract in IDI since cause of other risks, says worries about this and cause of her not sleeping at night	
	Lack of education		
	General Health		
	Risk of having nothing to fall back on in case of misfortune		
	Risk of looking and dealing with the consequences and not with the risks/lack of future perspective		
	Unclean surroundings	Embedded in PO, ways of protecting meat when slaughter an animal, boiling or frying straight away	
	Females walking round at night or hanging out in bars	Embedded in PO, dangerous in evening since would ruin a woman's reputation	
	Construction		
	Speed on roads/accidents		
	Deforestation		
	Sleeping inside with candles/house burning		

		Mariam	Pendo
	Drowning		
	Child whose teeth grew on upper gum first	Embedded in PO fear of causing death of future spouse so traditional medical treatment sought	
	Manjano	Embedded in PO and only curable by traditional medicine	Embedded in IDI and with dangers of injections in hospital, should be treated with traditional medicine
	Failure to perform *tambiko*	Embedded in PO, causes anger of ancestors and if strong can cause death, *kuzuia matukio mabaya inabidi kutambukia'* and that '*dini zimeua kila kitu'*, also cause of accidents by side of lake where an ***mtemi*** was buried and rains filled grave with water and since no *tambiko* was performed (misfortune not risk?)	
	Occupational risks	Embedded in PO, prevented from cooking *vitambua* in am due to smoke, told if continued would damage her health severely	
	Having kitchen inside main house/lack of toilet		
	Children away from home and out of control		
	Danger of mixing with different people		Embedded in IDI danger of mixing with groups which may seduce individual into involving self in bad behaviour
	Measles		
	Stigma related to scarring		
	Risk of offending neighbours/relatives/ quarrelling		
	Lack of belief in God/lack of fear in God		
	Customs & traditions in general		
	Maziwa machafu	Embedded in PO, normalised risk since mothers have way to cure through traditional medicine but don't need to consult healers	

		Mariam	Pendo
	Herpes Zoster		
	Cancer		
	Forced movement/relocation		
	Ebola		
	No Cultivation		

Appendix 9: FGD Interview codes

Code	Details	Date	Age
AYTHMA	Male Youth in Barakijiji	28/01/2006	18 - 30
AYTHFE	Female Youth in Barakijiji	04/02/2006	18 - 30
BNYFE	Women in Barakijiji	17/01/2006	26+
CMAFE	Women in Shambajiji	31/01/2006	26+
DNYMA	Men in Barakijiji	18/01/2006	26+
EMAMA	Men in Shambajiji	31/01/2006	26+
AYTHFEMA	Female Youth in Shambajiji	21/02/2006	15-26
AYTHMAMA	Male Youth in Shambajiji	21/02/2006	18-26
FNGDN1	Biomedical staff	15/01/2006	Mixed

References

(1995). The Concise Oxford Dictionary. Oxford, Oxford University Press.

(2002). Mwanza Regional Census Results. Population and Housing Census. G. o. Tanzania. Dar es Salaam. **2005**.

(2002). The Witchcraft Act. CAP 18. **33 of 1928, 25 of 1935, 45 of 1956, 12 of 1998**.

(2005). Mwanza Regional Census Results. Population and Housing Census. Dar es Salaam, Government of Tanzania.

Abrahams, R. (1981). The Nyamwezi Today. Cambridge, Cambridge University Press.

Abrahams, R. (1987). "Sungusungu: Village Vigilante Groups in Tanzania." African Affairs **87**(343): 179-196.

Abrahams, R. (1989). "Law and Order and the State in the Nyamwezi and Sukuma Area of Tanzania." Africa **59**.

Abrahams, R. (1994). Introduction. Witchcraft in Tanzania. R. Abrahams. Cambridge, African Studies Centre. **16**.

Adams, J. (1995). Risk. London, University College Press.

Agar, M. (1996). The Professional Stranger Handler: An Informal Introduction to Ethnography. San Diego, Academic Press.

Allen, C. (1996). "Book Review: R. Bunton et al (1995) The Sociology of Health Promotion: Crititcal Analyses of Consumption, Lifestyle and Risk." Sociology of Health and Illness **18**(3): 423-30.

Allen, D. R. (2002). Managing Motherhood, Managing Risk: Fertility and Danger in West Central Tanzania. Michigan, University of Michigan Press.

Allison, E. and J. Seeley (2004). "Another group at high risk for HIV." Science.

Appadurai, A. (1996). Modernity at Large: Cultural Dimensions of Globalization, University of Minnesota Press.

Arendell, T. (1997). "Reflections on the Researcher-Researched Relationship: A Woman Interviewing Men." Qualitative Sociology **20**(3).

Asforth, A. (2001). On living in a world with witches: Everyday epistemology and spiritual insecurity in a modern African city. Magical Interpretations, Material Realities. H. L. Moore and T. Sanders. London, Routledge.

Ashforth, A. (1996). "Of secrecy and the commonplace: witchcraft and power in Soweto." Social Research **63**(4): 1183-1234.

Ashforth, A. (2002). "An epidemic of witchcraft? The implications of AIDS for the post-apartheid state." African Studies **61**(1): 121-143.

Baksh, M. and A. Johnson (1990). Insurance Policies among the Machiguenga: An Ethnographic Analysis of Risk Management in a Non-Western Society. Risk and Uncertainty in Tribal and Peasant Economies. E. Cashdan. Boulder, San Francisco and London, Westview Press.

Barker, D. J. P., C. Cooper, et al. (1998). Epidemiology in Medical Practice. Edinburgh and London, Churchill Livingstone.

Barnard, H. R. (1995). Research Methods in Anthropology: Qualitative and Quantitative Approaches. Walnut Creek, Lanham, New York, Oxford, Altamira Press.

Barnett, T. and A. Whiteside (2002). AIDS in the Twenty-First Century: Disease and Globalization. Basingstoke, Palgrave Macmillan.

Barongo, L. R., M. W. Borgdorff, et al. (1992). "The epidemiology of HIV-1 infection in urban areas, roadside settlements and rural villages in Mwanza Region, Tanzania." AIDS **6**: 1521-1528.

Baum, F. (1999). "The role of social capital in health promotion: Australian perspectives." Health Promotion Journal of Australia **9**: 171-178.

Beck, U. (1992). Risk Society: Towards a New Modernity. London, Thousand Oaks, New Delhi, Sage Publications.

Beck, U. (1995). Ecological Politics in the Age of Risk. Cambridge, Polity Press.

Beck, U. (1999). World Risk Society. Cambridge, Polity Press.

Beck, U. (2002). "The Terrorist Threat: World Risk Society Revisited." Theory, Culture and Society **19**(4): 39-55.

Beck, U., A. Giddens, et al. (1994). Reflexive Modernization: Politics, Tradition and Aesthetics in the Modern Social Order. Cambridge, Polity Press.

Becker, G. and R. D. Nachtigall (1994). "'Born to be a Mother': The cultural construction of risk in infertility treatment in the US." Social Science and Medicine **39**(4): 507-518.

Behrman, J. R., H.-P. Kohler, et al. (2004). Social networks, HIV/AIDS and risk perceptions. Working Paper Series, Social Science Research Network Electronic Library. **2005**.

Bellaby, P. (1990). "To risk or not to risk? Uses and limitations of Mary Douglas on risk-acceptability for understanding health and safety at work and road accidents." Sociological Review **38**: 465-483.

Bellaby, P. and R. Flynn (2004). Is Hydrogen Safe? Approaches to the study of perceptions of risk among those who may have a stake in a future hydrogen economy. British Sociological Association Risk and Society Study Group: Taking Stock of Risk, Nottingham, UK.

Bellaby, P. and D. Lawrenson (2001). "Approaches to the risk of riding motorcycles: reflections on the problem of reconciling statistical risk assessment and motorcyclists' own reasons for riding." The Sociological Review: 369-388.

Bernard, H. R. (1995). Research Methods in Anthropology: Qualitative and Quantitative approaches. Walnut Creek, Lanham, New York, Oxford, Altamira Press.

Bessire, A. (1997). Sukuma Dancing and Dawa. Bujoral Cultural Museum. Mwanza, Tanzania. **2005**.

Biehl, J., B. J. Good, et al. (2007). Subjectivity: Ethnographic Investigations. Berkeley, Los Angeles, London, University of California Press.

Bloom, S. S., M. Urassa, et al. (2003). "Community effects on the risk of HIV infection in rural Tanzania." Sexually Transmitted Infections **78**: 261-266.

Bloor, M. (1995). The sociology of HIV transmission. London, Sage.

Boholm, A. (1996). "Risk perception and Social Anthropology: Critique of Cultural Theory." Ethnos **61**(1-2): 64-84.

Boholm, A. (2003). "The Cultural Nature of Risk: Can there be an Anthropology of Uncertainty?" Ethnos **68**(2): 159-178.

Bourdieu, P. (1973). The Algerian Subproletariat. Man, State and Society in the Contemporary Maghreb. I. W. Zarman. New York, Praeger.

Bourdieu, P. (1986). The forms of capital. The handbook of theory: research for the sociology of education. J. G. Richardson. New York, Greenwood Press**:** 241-58.

Boyne, R. (2001). "Cosmopolis and Risk: A Conversation with Ulrich Beck." Theory, Culture and Society **18**(4): 47-63.

Boyne, R. (2003). Risk. Buckingham, Philadelphia, Open University Press.

Brandstrom, P. (1991). Left-hand father and risht-hand mother: Unity and diversity in Sukuma-Nyamwezi thought. Body and Space: Symbolic models of unity and division in African cosmology and experience. A. Jaconson-Widding. Uppsala, Almqvist & Wiksell International.

Brieger, W. R., A. E. Onyido, et al. (1996). "Monitoring community response to malaria control using insecticide-impregnated bed nets, curtains and residual spray at Nsukka, Nigeria." Health Education Research **11**(2): 133-145.

Bujra, J. (2000). Risk and Trust: Unsafe sex, gender and AIDS in Tanzania. Risk Revisited. P. Caplan. London, Pluto Press.

Bukurura, S. H. (1995). "Indigenous Communication Systems: Lessons and experiences from among the Sukuma and Nyamwezi of West-central Tanzania." Nordic Journal of African Studies **4**(2): 1-16.

BureauofStatistics (2003). 2002 Population Census, Mwanza Regional Profile, President's Office Planning Commission. Dar es Salaam, Bureau of Statistics.

Burgess, R. G. (1997). In the Field: An Introduction to Field Research. London, New York, Routledge.

Burton-Jeangros, C. (2000). Lay knowledge of Health risks: A study among Swiss families. ESHMS and BSA Joint Conference, York, UK.

Burton-Jeangros, C., M. Golay, et al. (2004). "Adhesion et resistance aux vaccinations infantiles: une etude aupres de meres suisses."

Campbell, C., B. Williams, et al. (2002). "Is social capital a useful conceptual tool for exploring community level influences on HIV infection? An exploratory case study from South Africa." Aids Care **14**(1): 41-54.

Caplan, P. (2000). 'Eating British Beef with Confidence': A Consideration of Consumers' Responses to BSE in Britain. Risk Revisited. P. Caplan. London and Sterling VA, Pluto Press.

Caplan, P. (2000). Introduction. Risk Revisited. P. Caplan. London, Pluto Press.

Chase, S. E. (2005). Narrative Inquiry: Multiple lenses, approaches, voices. The Sage Handbook of Qualitative Research. N. K. Denzin and Y. S. Lincoln. Thousand Oaks, London, New Delhi, Sage Publications.

Coates, T. J., L. Richter, et al. (2008). "Behavioural strategies to reduce HIV transmission: how to make them work better." The Lancet **372**: 669-84.

Cohn, S. (2000). Risk, Ambiguity and the Loss of Control: How People with a Chronic Illness Experience Complex Biomedical Causal Models. Risk Revisited. P. Caplan. London and Sterling, VA, Pluto Press.

Coleman, J. S. (1988). Social Capital in the Creation of Human Capital. Chicago, University of Chicago Press.

Coleman, J. S. (1990). Foundations of social theory. Cambridge, MA, Harvard University Press.

Collier, S. J., A. Lakoff, et al. (2004). "Biosecurity: Towards and anthropology of the contemporary." Anthropology Today **20**(5).

Collins (1999). Concise English Dictionary. Glasgow, Harper Collins Publishers.

Comaroff, J. and J. L. Comaroff (1993). Introduction. Modernity and its Malcontents: Ritual and Power in Postcolonial Africa. J. Comaroff and J. L. Comaroff. Chicago & London, University of Chicago Press.

Comaroff, J. and J. L. Comaroff (1999). "Occult economies and the violence of abstraction: notes from the South African postcolony." American Ethnologist **26**(2): 279-303.

Comaroff, J. L. and J. Comaroff (2001). "On Personhood: an Anthropological Perspective from Africa." Social Identities **7**(2): 267-283.

Cory, H. (1960). "Religious beliefs and practices of the Sukuma/Nyamwezi tribal group." Tanganyika Notes and Queries **54**: 14-26.

Cory, H. (n.d.). Sukuma Family Relationship Terms. Cory Collection of Manuscripts. Dar es Salaam.

Craddock, S. (2000). "Disease, social identity and risk: rethinking the geography of AIDS." Transactions of the Institute of British Geographers **25**(2): 153-168.

Dake, K. (1992). "Myths of nature: culture and the social construction of risk." Journal of Social Issues **48**: 21-37.

Dake, K. and A. Wildavsky (1991). Individual differences in risk perception and risk-taking preferences. The analysis, communication and perception of risk. New York, Plenum**:** 15-24.

Davison, C., S. Frankel, et al. (1992). "The limits of lifestyle: re-assessing 'fatalism' in the popular culture of illness prevention." Soc Sci Med **34**(6): 675-85.

Day, S. (2000). The Politics of Risk among London Prostitutes. Risk Revisited. P. Caplan. London, Pluto Press.

Denzin, N. K. and Y. S. Lincoln (2005). Introduction: The discipline and practice of qualitative research. The Sage Handbook of Qualitative Research. N. K. Denzin and Y. S. Lincoln. Thousand Oaks, London, New Delhi, Sage Publications.

Desmond, N. A., C. Allen, F., et al. (2005). "A typology of groups at risk of HIV/STI in a mining community in Northern Tanzania." Social Science and Medicine.

Desmond, N. A., A. W. Solomon, et al. (2005). "Acceptability of azithromycin for the control of trachoma in Northen Tanzania." Transactions of the Royal Society of Tropical Medicine and Hygiene **99**: 656-663.

Dewalt and Dewalt (2002). Participant Observation: A guide for fieldworkers. Walnut Creek, Lanham, Oxford, Altamira Press.

Dewalt, K. M. and B. R. Dewalt (2002). Participant Observation: A Guide for Fieldworkers. Walnut Creek, Lanham, Oxford, Altamira Press.

Dilger, H. (2003). "Sexuality, AIDS, and the Lures of Modernity: Reflexivity and Morality among Young People in Rural Tanzania." Medical Anthropology **22**: 23-52.

Douglas, M. (1963). The Lele of the Kasai. London, Routledge & Kegan Paul.

Douglas, M. (1966). Purity and Danger: An analysis of concepts of pollution and taboo. London, Routledge.

Douglas, M. (1970). Natural Symbols. London; New York, Routledge.

Douglas, M. (1985). Risk Acceptability According to the Social Sciences. New York/London, Russell Sage/Routledge.

Douglas, M. (1992). Risk and Blame: Essays in Cultural Theory. London, Routledge.

Douglas, M. and M. Calvez (1990). "The self as risk taker: a cultural theory of contagion in relation to AIDS." Sociological Review **38**: 445-464.

Douglas, M. and A. Wildavsky (1982). Risk and Culture: An essay on the selection of environmental and technological dangers. Berkeley, University of California Press.

Durkheim, E. (1982). The Rules of Sociological Method. London, Macmillan.

Einarsdottir, J. (2005). Restoration of social order through the extinction of non-human children. Managing Uncertainty: Ethnographic studies of illness, risk and the struggle for control. V. Steffen, R. Jenkins and H. Jessen. Copenhagen, Museum Tusculanum Press, University of Copenhagen.

Eisenberg, L. (1977). "Disease and illness: distinctions between professional and popular ideas of sickness." Culture Medicine and Psychiatry: An International Journal of Comparative Cross-Cultural Research **1**: 9-23.

Ellaway, A. and S. Macintyre (2007). "Is social participation associated with cardiovascular disease risk factors?" Social Science and Medicine **64**(7): 1384-1391.

Emerson, R. M., R. I. Fretz, et al. (1995). Writing Ethnographic Fieldnotes. Chicago & London, University of Chicago Press.

Esser, H. (2008). What is social capital? Handbook of Social Capital. D. Castiglione, J. W. van Deth and W. Guglielmo.

Evans-Pritchard, E. (1973). "'Some reminiscences and reflections on fieldwork'." Journal of the Anthropology Society of Oxford **IV**(11-12).

Evans-Pritchard, E. E. (1937). Witchcraft, Oracles and Magic among the Azande. London, Faber and Faber.

Farmer, P., M. J. Lindenbaum, et al. (1993). "Women, Poverty and AIDS: An Introduction." Culture Medicine and Psychiatry: An International Journal of Comparative Cross-Cultural Research **17**: 387-397.

Field, J. (2003). Social Capital. London, Cambridge, New York, Routledge.

Finkler, K. (2003). "Illusions of controlling the future: risk and genetic inheritance." Anthropology and Medicine **10**(1): 51-70.

Finucane, M. L. and J. L. Holup (2005). "Psychosocial and cultural factors affecting the perceived risk of genetically modified food: an overview of the literature." Social Science and Medicine **60**(2005): 1603-1612.

Fischhoff, B., S. Lichenstein, et al. (1981). Acceptable risk. Cambridge, Cambridge University Press.

Fisher, J. D. (1992). "Changing AIDS-risk behaviour." Psychological Bulletin **111**(3): 455-474.

Fluehr-Lobhan, C. (1994). "Informed Consent in Anthropological Research: We are not Exempt." Human Organization **53**(1).

Fontana, A. and J. H. Frey (2005). The Interview: From neutral stance to political involvement. The Sage Handbook of Qualitative Research. N. K. Denzin and Y. S. Lincoln. Thousand Oaks, London, New Delhi, Sage Publications.

Foucault, M. (1973). The birth of the clinic. London, Tavistock.

Foucault, M. (1977). Discipline and Punish. London, Allen Lane.

Foucault, M. (1980). Power/Knowledge: Selected Interviews and Other Writings. London, Harvester Wheatsheaf.

Fox, N. J. (1999). Postmodern reflections on 'risk', 'hazards' and life choices. Risk and Sociocultural Theory: New Directions and Perspectives. D. Lupton. Cambridge, Cambridge University Press.

Frankel, S., C. Davison, et al. (1991). "Lay epidemiology and the rationality of responses to health education." British Journal of General Practice **41**: 428-30.

Freund, B. (1984). The making of contemporary Africa: The development of African society since 1800. Hong Kong, Macmillan Press Ltd.

Gabe, J. (1995). Health, medicine and risk: the need for a sociological approach. Medicine, Health and Risk: Sociological Approaches. J. Gabe. Oxford and Cambridge, Mass, Blackwell Publishers.

Gaskell, G., N. Allum, et al. (2004). "GM foods and the Misperception of Risk Perception." Risk Analysis **24**(1): 185-194.

Gass, M. (1973). Croyances, magie et superstitions des Bagwe ou Basukuma etablis au sud du lac Victoria Nyanza. Annuario della Pontifico Museo Missioni eEtnologico. Roma**:** 385-459.

Geertz, C. (1973). Thick description: toward an interpretive theory of culture. The Interpretation of Cultures. C. Geertz. New York, Basic Books.

Geissler, W. (2005). Blood stealing rumours in Western Kenya. Managing Uncertainty: Ethnographic studies of Illness, Risk and the struggle for control. R. Jenkins, H. Jessen and V. Steffen. Copenhagen, Museum Tusculanum Press, University of Copenhagen.

Geissler, W. and K. Ombongi (2006). Public perception of risk and risk-control - anthropological persepctives from Africa. Infectious Diseases: preparing for the future. London and Nairobi, Office of Science and Innovation.

Geshiere, P. (1997). The Modernity of Witchcraft: Politics and the Occult in Postcolonial Africa. Charlottesville & London, University of Virginia Press.

Giddens, A. (1990). The Consequences of Modernity. Cambridge, Polity Press.

Giddens, A. (1991). Modernity and Self Identity: Self and Society in the Late Modern Age. London, Polity Press.

Giddens, A. (1991). Modernity and Self-Identity. Cambridge, Oxford, Polity Press.

Giddens, A. (1994). Living in a Post-Traditional Society. Reflexive Modernisation. U. Beck, A. Giddens and S. Lash. Cambridge, Polity Pess.

Gilson, L. (2003). "Trust and the development of health care as a social instituition." Social Science and Medicine **56**(7): 1453-1468.

Goffman, E. (1959). The Presentation of Self in Everyday Life. London, Penguin.

Good, B. J. (1997 (1994)). Medicine, rationality and experience: an anthropological perspective. Cambridge, University of Cambridge.

Gratz, T. (2003). "Gold-mining and risk management: A case study from Northern Benin." Ethnos **68**(2): 192-208.

Green, M. (2000). "Participatpry development and the appropriation of agency in Southern Tanzania." Critique of Anthropology **20**(1): 67-86.

Green, M. (2005). "Discourses on inequality: Poverty, public bads and entrenching witchcraft in post-adjustment Tanzania." Anthropological Theory **5**: 247-266.

Green, M. and S. Mesaki (2005). "The birth of the 'salon': Poverty, 'modernization' and dealing with witchcraft in southern Tanzania." American Ethnologist **32**(3): 371-388.

Grimen, H. (2009). "Power, trust, and risk: some reflections on an absent issue." Med Anthropol Q **23**(1): 16-33.

Gunderson, F. (2001). "From "Dancing with Porcupines" to "Twirling a Hoe": Musical Labor Transformed in Sukumaland, Tanzania." Africa Today **48**(4).

Gyeke, K. (1997). Tradition and Modernity: Philosophical Reflections on the African Experience. New York & Oxford, Oxford University Press.

Hacking, I. (1990). The Taming of Chance. Cambridge, Cambridge University Press.

Hames, R. (1990). Sharing amond the Yanomamo: Part I, The Effects of Risk. Risk and Uncertainty in Tribal and Peasant Economies. E. Cashdan. Boulder, San Francisco and London, Westview Press.

Haram, L. (1995). Negotiating sexuality in times of economic want: The young and modern Meru women. Young People at Risk. Fighting AIDS in Northern Tanzania. K. Klepp, P. Biswalo and A. Talle. Oslo, Scandinavian University Press.

Haram, L. (2005). "AIDS and risk: The handling of uncertainty in northern Tanzania." Culture, Health and Sexuality **7**(1): 1-11.

Hart, G. (1999). "Guest Editorial: Risk and Health: challenges and opportunity." Health Risk and Society **1**(1).

Heelas, P., S. Lash, et al., Eds. (1996). Detraditionalization: Critical Reflections on Authority and Identity. Cambridge MA, Oxford, Blackwell.

Henwood, K., N. Pidgeon, et al. (2008). "Risk, framing and everyday life: Epistemological and methodological reflections from three socio-cultural projects." Health, Risk and Society **10**(5): 421-438.

Hobsbawn, E. and T. Ranger, Eds. (1983). The Invention of Tradition. Cambridge, Cambridge University Press.

Hogenboom, J., A. Mol, et al. (2000). Dealing with environmental risks in reflexive modernity. Risk in the modern age. M. Cohen. Basingstoke, Macmillan, Houndmills.

Horton, R. (1993). Patterns of thought in Africa and the West. Essays on magic, religion and science. Cambridge, Cambridge University Press.

Howard, M. and A. V. Millard (1997). Hunger and Shame: Child malnutrition and poverty on Mount Kilimanjaro. New York and London, Routledge.

Iliffe, J. (1979). A modern history of Tanganyika. Cambridge, Cambridge University Press.

Jaeger, C., O. Renn, et al. (2001). Risk, Uncertainty and Rational Action. London, Earthscan.

James, S., S. P. Reddy, et al. (2004). "Young people, HIV/AIDS/STIs and sexuality in South Africa: the gap between awareness and behaviour." Acta Paediatrica **93**(2): 264-269.

Jenkins, R. (1992). Pierre Bourdieu. London, Routedge.

Jordan-Harder, B., L. Maboko, et al. (2004). "Thirteen years HIV-1 sentinel surveillance and indicators for behaviouraql change suggest impact of programme activities in south-west Tanzania." AIDS **18**(2): 287-94.

Juma, W. (1960). "The Sukuma societies for young men and women." Tanganyika Notes and Records **54**: 27-29.

Kabuaye, M. S. (1975). Utani and related cultural institutions of the Sukuma peoples of Shinyanga. Utani Relationships in Tanzania. A. S. Lucas. Dar es Salaam, University of Dar es Salaam. **V:** 273-348.

Kamat, V., R (2006). ""I thought it was only ordinary fever!" cultural knowledge and the micropolitics of therapy seeking for childhood febrile illness in Tanzania." Social Science and Medicine **62**: 2945-2959.

Karp, I. and D. A. Masolo, Eds. (2000). African Philosophy as Cultural Inquiry. Bloomington & Indianapolis, Indiana University Press.

Kawachi, I. and L. Berkman (2001). Social Cohesion, Social Capital and Health. Social Epidemiology. L. Berkman and I. Kawachi. Oxford, Oxford University Press.

Kazi, S. (1975). A note on Sukuma Utani. Utani Relationships in Tanzania. S. A. Lucas. Dar es Salaam, University of Dar es Salaam. **V**.

Kemp, R. (1993). Risk Perception: The Assessment of Risks by Experts and Lay People - a Rational Comparison? Risk is a Construct: Perceptions of Risk Perception. B. Ruck. Munich, Knesebeck**:** 103-118.

Killewo, J. Z., G. Kwesigabo, et al. (1998). "Acceptability of voluntary HIV testing with counselling in a rural village in Kagera, Tanzania." Aids Care **10**(4): 431-439.

Killworth, P. (2000). A Risky Cease-Fire: British Infantry Soldiers and Northern Ireland. Risk Revisited. P. Caplan. London, Sterling, VA, Pluto Press.

Kleinman, A. (1973). "Medicine's symbolic reality: On the central problem in the philosophy of medicine." Science, Medicine and Man **16**: 206-213.

Kpanake, L., B. Chauvin, et al. (2008). "Societal Risk Perception Among African Villagers Without Access to the Media." Risk Analysis **28**(1): 193-202.

Langwick, S. (2005). Training Tanzanian Medicine: Transnational Knowledge and Local Labs. Locating the Field: The Ethnography of Medical Research in Africa, Kilifi, Kenya.

Langwick, S. A. (2007). "Devils, parasites and fierce needles: Healing and the politics of translation in Southern Tanzania." Science, Technology and Human Values **32**: 88-117.

Lees, S. and N. A. Desmond (2005). Body and Personhood: Contrasting perspectives amongst medical researchers and Tanzanian women participants in a feasibility study for a Phase III Clinical Trial of Vaginal Microbicides. Locating the Field, Kilifi, Kenya.

Lees, S., N. A. Desmond, et al. (Accepted). "The context of sexual risk behaviour for women working in recreational venues in Mwanza, Tanzania: Considerations for

the acceptability and use of vaginal microbicide gels." Culture Health and Sexuality.

Lees, S., N. A. Desmond, et al. (submitted). "The context of sexual risk behaviour for women working in recreational venues in Mwanza, Tanzania: Considerations for the acceptability and use of vaginal microbicide gels." Culture Health and Sexuality.

Lockhart, C. (2008). "The life and death of a street boy in East Africa." medical Anthropology Quarterly **22**(1): 94-115.

Lugalla, J., M. Emmelin, et al. (2004). "Social, cultural and sexual behavioral determinants of observed decline in HIV infection trends: lessons from the Kagera Region, Tanzania." Social Science and Medicine **59**(1): 185-98.

Lupton, D. (1999). Risk. London and New York, Routledge.

Lupton, D. (1999a). Risk. London, New York, Routledge.

Lupton, D. (1999a). Risk and Sociological Theory. Cambridge, Cambridge University Press.

Lupton, D. (1999b). Risk and sociocultural theory:new directions and perspectives. Cambridge, Cambridge University Press.

Lupton, D. and J. Tulloch (2002). "'Life would be pretty dull without risk': voluntary risk-taking and its pleasures." Health, Risk and Society **4**(2): 113-124.

Lyng, S. (1990). "Edgework: a social psychological analysis of voluntary risk-taking." American Journal of Sociology **95**(4): 851-886.

Mahajan, A. P., J. N. Sayles, et al. (2008). "Stigma in the HIV/AIDS epidemic: a review of the literature and recommendations for the way forward." Aids **22 Suppl 2**: S67-79.

Maharaj, P. and J. Cleland (2004). "Condom use within marital and cohabiting partnerships in KwaZulu-Natal, South Africa." Studies in Family Planning **35**(2): 116-124.

Malcolm, D. (1953). Sukumaland. An African People and their country. A study of land use in Tanganyika. London, International African Institute.

Marcus, G. E. (1984). Contemporary Problems of Ethnography in the Modern World System. Writing Culture: The Poetics and Politics of Ethnography. J. Clifford and G. E. Marcus. Berkley, Los Angeles, University of California Press.

Mesaki, S. (1993). Witchcraft and witch killings in Tanzania: Paradox and dilemma, University of Minnesota.

Mesaki, S. (1994). Witch Killing in Sukumaland. Witchcraft in Contemporary Tanzania. R. Abrahams. Cambridge, African Studies Centre.

Mesaki, S. (1995). The preponderance of women as victims in Sukuma witch killings. The Tanzania Peasantry; Economy in Crisis. P. Forster and S. Maghimbi. Aldershot, Avebury.

Mgalla, Z. and R. Pool (1997). "Sexual relationships, condom use and risk perception among female bar workers in north-west Tanzania." AIDS Care **9**(4): 407-416.

Miguel, E. (2004). "Poverty and Witch Killing." Review of Economic Studies.

MkV (2008). Mema kwa Vijana: Long-term evaluation: Interpretation of the 2007-2008 Survey Results. London, London School of Hygiene and Tropical Medicine. **2009**.

Moldrup, C. and J. M. Morgall (2001). "Risk Society-reconsidered in a drug context." Health, Risk and Society **3**(1): 59-74.

Mombeshora, S. (1994). Witches, witchcraft and the question of order: A view from a Bena village in the Southern Highlands. Witchcraft in contemporary Tanzania. R. G. Abrahams. Cambridge, African Studies Centre, University of Cambridge.

Moore, H. L. and T. Sanders (2001). Introduction. Magical interpretations, material realities. H. L. Moore and T. Sanders. London and New York, Routledge.

Mshana, G., M. Plummer, et al. (2006). "'She was bewtiched and caught an illness similar to AIDS': AIDS and sexually transmitted infection causation beliefs in rural northern Tanzania." Culture Health and Sexuality **8**(1): 45-58.

Muela, S. H., J. M. Ribera, et al. (2002). "Medical syncretism with reference to malaria in a Tanzanian community." Social Science and Medicine **55**(3): 403-413.

Mwaluko, G., M. Urassa, et al. (2003). "Trends in HIV and sexual behaviour in a longitudinal study in a rural population in Tanzania, 1994-2000." AIDS **17**(18): 2645-51.

Nnko, S. E. A. (2005). Remote bloodsucking: ambivalence towards medical field research and biomedical technologies. Locating the field, Kilifi, Kenya.

Obbo, C. (1995). Gender, age and class: Discourses on HIV transmission and control in Uganda. Culture and Sexual Risk: Anthropological Perspectives on AIDS. H. t. Brummelhuis and G. Herdt. London & New York, Routledge.

Olesen, V. (2005). Early millenial feminist qualitative research: Challenges and contours. The Sage Handbook of Qualitative Research. N. K. Denzin and Y. S. Lincoln. Thousand Oaks, London, New Delhi, Sage Publications.

O'Neill, J. (1995). The mutuality of science and common sense: An essay on political trust. The poverty of Postmodernism. J. O'Neill. London & New York, Routledge.

Pedler, F. J. (1940). "Joking relationship in Usukuma." Africa **13**: 170-173.

Pickering, H., M. Okongo, et al. (1997). "Sexual networks in Uganda: mixing patterns between a trading town, its rural hinetrland and a nearby fishing village." International Journal of STD and AIDS **8**: 495-500.

Pidgeon, N., R. E. Kasperson, et al. (2003). Introduction. The Social Amplification of Risk. N. Pidgeon, R. E. Kasperson and P. Slovic. Cambridge, New York, Cambridge University Press.

Pidgeon, N., Slovic, P., Kasperson, J.X & Kasperson, R.E. (2003). The social amplification of risk: assessing fifteen years of research and theory. The social amplification of risk. N. Pidgeon, Slovic, P., Kasperson. Cambridge, CUP**:** 13-46.

Pool, R. and W. Geissler (2005). Medical Anthropology. London, New York, Open University Press.

Pool, R., M. J. Maswe, et al. (1996). "The price of promiscuity: why urban males in Tanzania are changing their sexual behaviour." Health Transition Review **6**: 203-221.

Portes, A. (1998). "Social Capital: Its origins and applications in modern sociology." Annual Review of Sociology **24**: 1-24.

Pronyck, P. M., T. Harpham, et al. (2008). "Is Social capital associated with HIV risk in rural South Africa?" Social Science and Medicine **66**: 1999-2010.

Putnam, R. (1993). Making democracy work. New Jersey, Princeton University Press.

Quinn, C. T., M. Huby, et al. (2003). "Local perceptions of risk to livelihood in semi-arid Tanzania." Journal of Environmental Management **68**: 111-119.

Rabinow, P. (1977). Reflections on fieldwork in Morocco. Berkley, University of California Press.

Rabinow, P., Ed. (1986). The Foucault Reader. Harmondsworth, Penguin Books.

Renn, O. and B. Rohrmann (2000). Cross-cultural risk perception: A survey of empirical studies. Dordrecht, Boston, London, Kluwer Academic Publishers.

Rodlach, A. (2006). Witches, Westerners and HIV: AIDS and Cultures of Blame in Africa. Walnut Creek, Left Coast Press.

Rohrmann, B. and O. Renn (2000). Risk perception research: an introduction. Cross-cultural risk perception: A survey of empirical studies. O. Renn and B. Rohrmann. Dordrecht, Boston, London, Kluwer Academic Publishers.

Rosa, E. A. (1996). Metatheoretical foundations for post-normal risk. SRA Europe Meeting, University of Surrey, Guilford, UK.

Rosa, E. A. (1998). "Metatheoretical Foundations for Post-Normal Risk." Journal of Risk Research **1**(1): 15-44.

Roth Allen, D. (2000). "Learning the facts of life: Past and present experiences in a rural Tanzanian community." Africa Today **47**(3/4): 2-27.

Rothenberg, R. B. and J. J. Potterat (1996). "Personal risk taking and the spread of disease: Beyond core groups." The Journal of Infectious Diseases **174**(Supplement 2): 144-9.

RoyalSociety (1992). Risk: Analysis, Perception and Management. London, The Royal Society.

Salamba, Z. and K. Nyalali (2001). Participant Observation Report: Kahunda Village, Katwe Intervention Community, Sengerema District. Halira. Mwanza, National Institute for Medical Research/African Medical and Research Foundation/London School of Hygiene and Tropical Medicine.

Salmon, C. T. and C. Atkin (2003). Using media campaigns for health promotion. Handbook of Health Communication. T. Thompson, A. Dorsey, R. Parrott and K. Miller. New Jersey, Lawrence Erlbaum Associates Inc.

Sanders, T. (1999). "Modernity, wealth and witchcraft in Tanzania." Research in Economic Anthropology **20**: 117-131.

Sanders, T. (2003). "Reconsidering witchcraft: postcolonial Africa and analytic (un)certainties." American Anthropologist **105**(2): 338-352.

Saukko, P. (2005). Methodologies for cultural studies: An integrative approach. The Sage Handbook of Qualitative Research. N. K. Denzin and Y. S. Lincoln. Thousand Oaks, London, New Delhi, Sage Publications.

Schellenberg, J. A., C. G. Victoria, et al. (2003). "Inequities among the very poor: health care for children in rural southern Tanzania." The Lancet **361**(9357): 561-6.

Schiller, N. G., S. Crystal, et al. (1994). "Risky Business: The Cultural Construction of AIDS Risk Groups." Social Science and Medicine **38**(10): 1337-1346.

Schoepf, B. G. (1995). Culture, sex research and AIDS prevention in Africa. Culture and Sexual Risk: Anthropological Perspectives on AIDS. H. t. Brummelhuis and G. Herdt. London & New York, Routledge.

Seale, C. (1999). The Quality of Qualitative Research. London, Sage Publications.

Seidel, G. (1993). "Women at risk: Gender and AIDS in Africa." Disasters **17**(2): 133-142.

Seidel, G. and L. Vidal (1997). The implications of 'medical', 'gender in development' and 'culturalist' discourses for HIV/AIDS policy in Africa. Anthropology of Policy: Critical perspectives on governance and power. C. Shore and S. Wright. London & New York, Routledge.

Sen, A. (1997). "Editorial: Human Capital and Human Capability." World Development **25**(12): 1959-1961.

Sen, A. (1999). Development as Freedom. Oxford, Oxford University Press.

Setel, P. (1996). "AIDS as a paradox of manhood and development in Kilimanjaro, Tanzania." Social Science and Medicine **43**(8): 1169-1178.

Setel, P. (1999). A Plague of Paradoxes: AIDS, Culture and Demography in Northern Tanzania. Chicago and London, The University of Chicago Press.

Seymour-Smith, C. (1986). Macmillan Dictionary of Anthropology. London & Basingstoke, Macmillan Press Ltd.

Shaw, A. (2000). 'Conflicting Models of Risk': Clinical Genetics and British Pakistanis. Risk Revisited. P. Caplan. London, Pluto Press.

Sherine, F. H. (2009). "Islam, fatalism and medical intervention:Lessons from Egypt on the cultivation of forbearance (Sabr) and reliance on God (Tawakkul." Anthropological Quarterly **82**(N1): 173-196.

Shin, D. C., M. Chey, et al. (1989). "Cultural Origins of Public Support for Democracy in Korea: An Empirical Test of the Douglas-Wildavsky Theory of Culture." Comparative Political Studies **22**(2): 217-238.

Silverman, D. (2000). Doing Qualitative Research. London, Sage Publications.

Sjoberg, L. (2000). "Factors in risk perception." Risk Analysis **1**: 1-11.

Sjoberg, L. (2004). "Local Acceptance of a High-Level Nuclear Waste Repository." Risk Analysis **24**(3): 737-749.

Sjoberg, L., D. Kolarova, et al. (2000). Risk Perception in Bulgaria and Romania. Cross-Cultural Risk Perception - A Suvey of Empirical Studies. O. Renn and B. Bohrman. Dordrecht, Boston and London, Kluwer Academic Publishers. **13:** 145-184.

Slovic, P. (1992). Perception of Risk: reflections on the psychometric paradigm. Social Theories of Risk. S. Krimsky and D. Golding. Connecticut, Praeger.

Slovic, P. (2000). The Perception of Risk. London and Sterling, VA, Earthscan Publications.

Slovic, P., M. L. Finucane, et al. (2002). Risk as analysis and risk as feelings: Some thoguhts about affect rason, risk and rationality. Annual Meeting of the Society for Risk Analysis, New Orleans, LA.

Slovic, P., M. L. Finucane, et al. (2004). "Risk as analysis and risk as feelings: Some thoughts about affect reason, risk and rationality." Risk Analysis **24**(2): 311-322.

Smith, D. J. (2003). "Imagining HIV/AIDS: Morality and Perceptions of Personal Risk in Nigeria." Medical Anthropology **22**(4): 343-372.

Smith, K. P. and S. C. Watkins (2005). "Perceptions of risk and strategies for prevention: responses to HIV/AIDS in rural Malawi." Social Science and Medicine **60**: 649-660.

Smith, N., A. Cebulla, et al. (2006). "Risk perception and the presentation of self: reflections from fieldwork on risk." Forum: qualitative social research **7**(1): Art. 9.

Somi, G. R., M. I. Matee, et al. (2006). "Estimating and projecting HIV prevalence and AIDS deaths in Tanzania using antenatal surveillance data." BMC Public Health **6**(120).

Somi, M. F., J. T. Butler, et al. (2007). "Is there evidence for dual causation between malaria and socioeconomic status? Findings from rural Tanzania." American Journal of Tropical Medicine and Hygiene **77**(6): 1020-1027.

Sreeramareddy, C. T., R. P. Shankar, et al. (2006). "Care seeking behaviour for childhood illness - a questionnaire survey in western Nepal." BMC International Health and Human Rights **6**(7).

Steffen, V., R. Jenkins, et al., Eds. (2005). Managing Uncertainty: Ethnographic Studies of Illness, Risk and the Struggle for Control. Copenhagen, Museum Tusculanum Press, University of Copenhagen.

Stoffle, R. W., M. W. Traugott, et al. (1991). "Risk Perception Mapping: Using Erhograpy to Define the Locally Affected Population for a Low-Level Radioactive Waste Storage Facility in Michigan." American Anthropologist **93**(3): 611-635.

Stroeken, K. (2001). "Defying the Gaze:Exodelics for the Bewitched in Sukumaland and Beyond." Dialectical Anthropology **26**: 285-309.

Swantz, M.-L. (1966). The religious and magical rites connected with the life-cycle of the women of some Bantu ethnic groups of Tanzania. Dar es Salaam.

Swidler, A. and S. C. Watkins (2007). "Ties of Dependence: AIDS and Transactional Sex in Rural Malawi." Studies in Family Planning **38**(3): 147-162.

Tanner, M. and C. Vlassoff (1998). "Treatment seeking behaviour for malaria: A typology based on endemicity and gender." Social Science and Medicine **46**(4-5): 523-532.

Tanner, R. (1956). "An introduction to the Northern Basukuma's idea of the Supreme Being." Anthropological Quarterly **29**: 69-81.

Tanner, R. (1958). "Sukuma ancestor worship and its relationship to social structure." Tanganyika Notes and Records **50**: 52-62.

Tanner, R. (1958). "Sukuma ancetsor worship and its relationship to social structure." Tanganyika Notes and Queries **50**(June): 52-62.

Tanner, R. (1967). Transition in African Beliefs. New York, Maryknoll.

Tanner, R. (1970). The wtich murders in Sukumaland. A sociological commentary. Uppsala, Scandinavian Institute of African Studies.

Tanzania Commission for AIDS, N. B. o. S., ORC Macro (2005). Tanzania HIV/AIDS Indicator Survey 2003-2004. Calverton.

Taylor-Gooby, P. (2002). "Varieties of Risk." Health, Risk and Society **4**(2): 109-111.

Tibandebage, P. and M. Mackintosh (2005). "The market shaping of charges, trust and abuse: health care transactions in Tanzania." Social Science and Medicine **61**: 1385-1395.

Trostle, J. A. (2005). Epidemiology and Culture. Cambridge, Cambridge University Press.

Tulloch, J. and D. Lupton (2003). Risk and Everyday Life. London, Thousand Oaks and New Delhi, Sage Publications.

Turner, V. (1957). Schism and Continuity in an African Society: A study of Ndembu Village Life. Manchester, Manchester University Press.

Turner, V. (1968). The Drums of Affliction. Oxford, Clarendon Press.

Tversky, A. and D. Kahneman (1981). "The framing of decisions and the psychology of choice." Science **211**: 452-458.

UNAIDS (2004). Country Situation Analysis and HIV and AIDS Estimates, end 2003. **2004**.

UNAIDS (2006). Report on the global AIDS epidemic. Geneva.

UNAIDS (2007). Epidemic Update Report 2007. Geneva.

Varkevisser, C. (1973). Socialization in a changing society. Sukuma childhood in rural and urban Mwanza, Tanzania. Den Haag, Centre for the Study of Education in Changing Societies.

Vaughan, M. (1991). Curing their ills: Colonial power and African illness. Stanford, California, Stanford University Press.

Vera-Sanso, P. (2000). Risk-talk: the Politics of Risk and its Representation. Risk Revisited. P. Caplan. London, Pluto Press.

Wallman, S. (2000). "Risk, STD and HIV infection in Kampala." Health, Risk and Society **2**(2): 189-203.

Wamoyi, J. and Z. Salamba (2000). Participant Observation Report: Kishili Village, Mwagi Comparison Community, Kwimba District. Halira Programme. Mwanza, National Institute for Medical Research/ African Medical Research Foundation/London School of Hygiene and Tropical Medicine.

Warren, C. (1988). Gender Issues in field research. Newbury Park, California, Sage Publications.

Waters, M. (1995). Globalization. London, New York, Routledge.

Weber, M. (1949). 'Objectivity' in social science and social policy. The methodology of the Social Sciences. New York, Free Press.

Weiss, B. (2004). Contentious Futures: Past and Present. Producing African Futures. B. Weiss. Leiden, Boston, Brill.

Weiss, B. (2004). Introduction: Contentious Futures: Past and Present. Producing African Futures. B. Weiss. Leiden, Boston, Brill.

Welch, M. R., R. E. N. Rivera, et al. (2005). "Determinants and Consequences of Social Trust." Sociological Inquiry **75**(4): 453-473.

Wellings, K., M. Collumbien, et al. (2006). "Sexual behaviour in context: a global perspective." The Lancet **368**(9548): 1706-1728.

West, H. (1997). "Creative destruction and sorcery of construction: Power, hope and suspicion in post-war Mozambique." Cahiers d'etudes africaines **147**(3): 675-698.

White, L. (2000). Speaking with vampires: rumour and history in Colonial Africa. Berkeley, Los Angeles, London, University of California Press.

White, R. (1999). Putting risk in perspective. Lanham, MD, Rowman & Littlefield.

WHO (2000). WHO Report on Global Surveillance of Epidemic-prone Infectious Diseases - Yellow fever. Epidemic and Pandemic Alert and Response (EPR) 1985-1999. **2008**.

Whyte, S. (1997). Questioning Misfortune: The Pragmatics Uncertainty in Eastern Uganda. Cambridge, Cambridge University Press.

Whyte, S. R. (1997). Questioning misfortune: The pragmatics of uncertainty in eastern Uganda. Cambridge, Cambridge University Press.

Wight, D. (1993). Workers not wasters: masculine respectability, consumption and employment in Central Scotland. Edinburgh, Edinburgh University Press.

Wight, D. (1999). "Cultural factors in young heterosexual men's perception of HIV risk." Sociology of Health and Illness **21**(6): 735-758.

Wight, D. (2006). Participant Observation: An Introduction.

Wight, D., M. Plummer, et al. (2006). "Contradictory sexual norms and expectations for young people in rural northern Tanzania." Social Science and Medicine **62**: 987-997.

Wijsen, F. (1993). There is only one God. A social-scientific and theological study of popular religion and evangelization in Sukumaland, Northwest Tanzania. Kampen, Uitgeverij Kok.

Wijsen, F. and R. Tanner (2000). Seeking a Good Life: Religion and Society in Usukuma, Tanzania. Nairobi, Paulines Publications, Africa.

Wijsen, F. and R. Tanner (2002). 'I am just a Sukuma': Globalization and Identity Construction in Northwest Tanzania. Amsterdam, New York, Rodopi.

Wilkinson, I. (2001). "Social Theories of Risk Perception: At Once Indispensable and Insufficient." Current Sociology **49**(1): 1-22.

Williams, O. G. (1935). "Village organization among the Sukuma." Man **35**: 119-120.

Woolcock, M. (1998). "Social capital and economic development: toward a theoretical synthesis and policy framework." Theory and Society **27**: 151-208.

Wright, A. C. A. (1954). "The magical importance of pangolins among the Basukuma." Tanganyika Notes and Records **36**: 71-72.

Xie, X., M. Wang, et al. (2003). "What Risks are Chinese People Concerned About?" Risk Analysis **23**(4): 685-695.

Yahya-Malima, K. and e. al (2007). "High potential of escalating HIV transmission in a low prevalence setting in rural Tanzania." BMC Public Health **7**(103).