

Batwa, Gorillas and the Ruhija Road

a relational perspective on controversies at Bwindi Impenetrable
National Park, Uganda



Christine Ampumuza

Propositions

1. Passivity denotes presence, not absence, of agency.
(this thesis)
2. To be out of relations, is to be out of existence.
(this thesis)
3. Learning necessitates unlearning.
4. Scientific research co-creates the problems that it tries to solve.
5. The COVID-19 pandemic has been a burden to humans, but also a relief to our climate.
6. Activism keeps issues on the global or national agenda, but rarely translates into lasting solutions.

Propositions belonging to the PhD thesis, entitled:

Batwa, Gorillas, and the Ruhija road: a relational perspective on controversies at Bwindi Impenetrable National Park, Uganda

Christine Ampumuza

Wageningen, 26 May 2021

Batwa, Gorillas and the Ruhija Road:

**a relational perspective on controversies at Bwindi Impenetrable
National Park, Uganda**

Christine Ampumuza

Thesis Committee

Promotor

Prof. Dr V.R. van der Duim

Personal Chair, Cultural Geography Group

Wageningen University & Research

Co-promotor

Dr M. Duineveld

Associate Professor, Cultural Geography Group

Wageningen University & Research

Other members

Prof. Dr I. Visseren-Hamakers, Radboud University Nijmegen

Prof. Dr E. Turnhout, Wageningen University & Research

Prof. Dr G. Jóhannesson, University of Iceland, Reykjavík, Iceland

Dr E. Rasch, Wageningen University & Research.

This thesis was conducted under the auspices of the Wageningen School of Social Sciences

**Batwa, Gorillas and the Ruhija Road:
a relational perspective on controversies at Bwindi Impenetrable National Park, Uganda**

Christine Ampumuza

Thesis

submitted in fulfilment of the requirements for the degree of doctor

at Wageningen University

by the authority of the Rector Magnificus

Prof. Dr A.P.J. Mol

in the presence of the

Thesis Committee appointed by the Academic Board

to be defended in public

on Wednesday 26 May 2021

at 11.00 a.m. in the Aula

Christine Ampumuza

Batwa, Gorillas and the Ruhija Road:

a relational perspective on controversies at Bwindi Impenetrable National Park, Uganda

127 pages

PhD thesis, Wageningen University, Wageningen, the Netherlands (2021)

With references, with summary in English

ISBN: 978-94-6395-746-5

DOI: <https://doi.org/10.18174/543289>

Table of Contents

Preface	5
Chapter 1	7
General introduction to controversies at Bwindi	7
1.1. Introduction to conservation of African landscapes	8
1.2. Bwindi Impenetrable National Park	9
1.3. Batwa, roads and gorilla habituation controversies at Bwindi	11
1.3.1. <i>The Batwa controversy</i>	11
1.3.2. <i>The Gorilla habituation controversy</i>	12
1.3.4. <i>Three controversies, three actors</i>	14
1.4. Actor Network Theory, relational agency, enactment and multiplicity	14
1.4.1. <i>Relational agency</i>	15
1.4.2. <i>Enactment</i>	15
1.4.3. <i>Multiplicity</i>	16
1.5. Research question	17
1.6. Methodology: Following the actors	17
1.6.1. <i>Positionality statement</i>	18
Chapter 2:	23
The most marginalised people in Uganda? Alternative realities of Batwa at Bwindi Impenetrable National Park, Uganda	23
Abstract	24
2.1. Introduction	25
2.2. Enacting agency: in/from discourses in/to practices	30
2.2.1. <i>Discursive agency</i>	31
2.3. Methods	32
2.4. Dominant Batwa narratives: Marginalised and victimised Batwa	33
2.4.1. <i>Bio-ecological uniqueness</i>	33
2.4.2. <i>Primitive subjects</i>	34
2.4.3. <i>Victims</i>	35
2.4.4. <i>Vulnerable and poor subjects</i>	36
2.5. The performative effects of the dominant marginalisation narratives	36
2.6. Counter-narratives: Alternative Batwa realities	37
2.6.1. <i>Forest ecology experts</i>	38
2.6.2. <i>Tourism entrepreneurs</i>	39
2.6.3. <i>Community developers</i>	40
2.6.4. <i>Political activists</i>	41
2.7. Conclusion and discussion: Agency reduction, performative effects and situational agency	42
2.7.1. <i>The performativity of agency reduction/marginalisation discourse</i>	42

2.7.2. <i>Taking into account the Batwa's multiple situational agency</i>	43
Chapter 3	45
Gorilla habituation and the role of animal agency in conservation and tourism development at Bwindi, South Western Uganda	45
Abstract	46
3.1. Conservation, tourism and the Bwindi gorillas	47
3.1.1. <i>Habituation of Bwindi gorillas</i>	48
3.1.2. <i>Towards a more than human understanding of wildlife/gorillas</i>	50
3.2. Animal agency: A relational perspective	51
3.3. Methods	54
3.4. Habituation revisited: Multiple gorilla relations	55
3.4.1. <i>Gorillas–habituation scientists</i>	55
3.4.2. <i>Gorillas–rangers</i>	56
3.4.3. <i>Gorillas–veterinary doctors</i>	56
3.4.4. <i>Gorillas–local human communities</i>	57
3.4.5. <i>Gorillas–tourists</i>	58
3.4.6. <i>Gorillas–gorillas</i>	60
3.5. The role of animal agency in conservation and tourism at Bwindi	61
3.6. Conclusion	65
3.7. Implications for conservation and tourism development	67
Chapter 4	71
Material pacification: how a conflict over paving Uganda's tourism road got accidentally resolved	71
Abstract	72
4.1. Introduction	73
4.2. To pave or not pave the impenetrable?	74
4.3. Theoretical framework	75
4.3.1. <i>Material agency</i>	75
4.3.2. <i>Object lessons</i>	76
4.3.3. <i>Our focus</i>	77
4.4. A contested road	77
4.4.1. <i>Living with the Ruhija road, stories of discontent</i>	77
4.4.2. <i>Attempts to pave the unpaved</i>	79
4.4.3. <i>Conservationists resisting and undermining paving the Ruhija road</i>	81
4.5. Conflicting realities	82
4.5.1. <i>The tourist road</i>	82
4.5.2. <i>The non-road</i>	82
4.5.3. <i>The ecological road</i>	83
4.6. Realities in their own right and the limits of consensus	83

4.7. Consensus materiality	83
4.8. Conclusion	85
Chapter 5	89
Conclusions and Discussion	89
5.1. Introduction	90
5.2. Role of human, animal and material agency in producing controversies at Bwindi ...	91
<i>5.1.1. Multiple relations, multiple realities</i>	<i>91</i>
<i>5.1.2. Productive relations</i>	<i>93</i>
5.2. Implications of a relational perspective on conservation and tourism development at Bwindi.....	95
<i>5.2.1. Dealing with and making use of human and nonhuman agency</i>	<i>95</i>
<i>5.2.2. Beyond instrumentalism towards adaptable conservation</i>	<i>96</i>
5.3. Controversies revisited.....	97
<i>5.3.1. Controversies make places and places make controversies</i>	<i>98</i>
<i>5.3.2. Every story is a particular enactment of reality</i>	<i>99</i>
<i>5.3.3. Passivity in the context of controversies denotes presence of agency, not its absence.....</i>	<i>100</i>
5.4. Limitations of this study and suggestions for further research	101
References	103
Summary	103
Acknowledgements	123
About the Author	125
List of publications	126

Preface

The beginnings of this PhD thesis go back to my childhood experiences, and interactions with people from various disciplines and walks of life during my professional endeavours. My first vivid memory of the Bwindi story was told by my father who told me about one of his 1971 trips from Kabale via Bwindi forest. In his story, I was captivated by the part of the trip where they rode at the back of an old pick up crammed with people, livestock, furniture and agricultural produce; often getting off to push the pickup on steep sections of a very rough road through a very thick forest. They had to spend a night in the forest where they were welcomed by relatively short people whom they called pygmies. Before they left, one of the elderly men said to him: *'mzei, fata mu bigoti ompe agasente'*, literally translated as: 'old man, reach into your pocket and give me money'.

Growing up, the word Batwa became more common and the stories about them resonated with the description that my father had told us before. The phrase 'Batwa mentality' became commonly associated with 'people who cannot save for the future', based on stories that when Batwa eat to satiety, they burn the granaries/silos. My father's and other people's stories raised my curiosity about the Batwa people. Lower-level education and more information about Uganda's national parks augmented the previous concepts that had been imprinted in my mind from childhood stories.

In 2003, a year after my Bachelor in Tourism, I was appointed as a teaching assistant in the Department of Tourism of Kabale University, at a 4-hour drive from Bwindi. In the second year of my assistantship, I took a study trip to the Bwindi forest with my students and colleagues. By this time, my wish to visit Bwindi was motivated by the desire to understand more about the evictions, restrictions and conflicts that ensued in the process of creating the park. My mindset had changed from wishing to experience the fairy-tale like encounters of the Bwindi adventure to a quasi-activist. I recall asking numerous questions about the injustices and insisting on knowing the solutions that the park administration had in mind to address these.

The activist spirit in me seemed to slowly grow as I later joined a regional multi-stakeholder platform that mainly advocated for increasing community benefits from conservation and tourism, as well as infrastructure development. Throughout my professional

life, I have worked on projects and activities mainly focusing on issues related to gorilla tourism. These projects bring together conservationists, biologists, philanthropists, NGO staff, psychologists, social workers, religious leaders, journalists, planners, development practitioners, security personnel, engineers, and local people from various tribes in and around Bwindi.

My immersion into the debates around Bwindi, through the said engagements, made it apparent that the problem-solution thinking was close to being an illusion. By the time I started this PhD project, I was somewhat frustrated that the topics of our advocacy (e.g. making presentations for policymakers, critiquing the injustices and writing memos) since 2011 had not yielded substantial change. It dawned on me that the Batwa and other tribes would not regain full access to the forest; the paving of the Ruhija road was very complicated, because there were many more issues than accessibility to markets and other facilities; and the habituation of gorillas was more than an ecological undertaking, it was also an economic undertaking, to collect revenues to partially compensate the communities for the conservation-related costs.

These realisations pushed me into trying to find alternative ways of understanding the relentless debates and irresolvable issues around Bwindi. While conducting a literature review in preparation of my PhD proposal, I read Tomasso Venturini's (2010: 263) article in which he argued that, "controversies remain the best available occasions to observe the social world and its making". Reading this article not only showed me a whole new way of thinking about controversies around Bwindi, but also formed the basis of my choice to adopt Actor Network Theory (ANT) as my analytical point of entry into rethinking, re-analysing and providing a different understanding of the controversies I had been engaged with for many years. By making this choice, this time I did not focus on how the controversies should be resolved. Rather, I focused on understanding how the said controversies, entangled actors, and the world of Bwindi, come into being and take the shapes they do.

Chapter 1

General introduction to controversies at Bwindi



1.1. Introduction to conservation of African landscapes

Conservation of African landscapes through tourism remains a contested subject. Some scholars view conservation through tourism to be a tool for preventing species loss, while generating alternative livelihoods. In this school of thought, it is believed that, “well-managed protected areas can provide crucial ecosystem services, including water, food security, protection of wild relatives of crops, maintenance of wild fish stocks and carbon storage” (Watson et al., 2014: 68). Naidoo et al. (2019) also use these arguments and posit that conserving biodiversity through protected areas increases the wealth and health of adjacent communities. Another school of thought argues that conservation is an extension of the colonial project riddled with disparities, dispossessions and injustices (Mbaria and Ogada, 2016; Nelson, 2003). Related to the latter are those who argue that conservation and tourism romanticises and commodifies Africa’s landscapes, people and wildlife for the increasingly capitalistic world (Brockington and Duffy, 2011; Brockington and Scholfield, 2010; Büscher et al., 2012).

In both schools of thought, humans – especially western scientists and African elites (Mbaria and Ogada, 2016) and global structures and forces such as capitalism, colonialism and particular knowledges – are seen as the sole actors that constitute conservation and tourism on the African continent. Yet, there is a growing body of literature that argues that we should widen our analysis beyond explanations that put the main emphasis solely on human actors and/or social structures. Over the last two decades anthropologists, geographers, tourism scholars and many others have argued and demonstrated that our world is shaped by relations between human and non-human actors of all sorts (Law, 2015; Mol, 2002). Or what Whatmore has termed as ‘more-than-human’ (see Michael, 2016).

These more-than-human perspectives render it impossible to observe conservation and tourism at Bwindi in its current shape without taking into account gorillas, texts, vegetation, access roads and all other sorts of non-human actors in addition to the human actors, such as local inhabitants, tourists and scientists. I expect that including these actors in my analysis will unlock the current discussions at Bwindi by offering multiple and alternative ways of observing controversies regarding conservation and (tourism) development processes. This view offers a renewed understanding of the contested and complex nature of conservation, development and tourism in a highly changeable landscape such as Bwindi.

Therefore, in this thesis, I examine three controversies at Bwindi Impenetrable National Park to draw attention to how humans and non-humans play a role in the daily conservation, development and tourism practices. The three controversies concerning Batwa marginalisation, gorilla habituation and paving the Ruhija road highlight three key actors: the Batwa, gorillas and Ruhija road. By taking these three actors as points of entry to my more-than-human relational analysis, I deviate from the dominant focus on structures and 'expert' scientists. With this approach, my aim is twofold: 1) to contribute to a different analytical perspective to understanding controversies at Bwindi that is still dominated by managerial, and critical perspectives; 2) to interest the readers, and tourism and conservation practitioners, in the relational nature of controversies, thereby contributing to a broader understanding of how all actors (human and non-human, lay and experts,) contribute to the shaping of conservation and tourism processes. To set the context of this thesis, I first introduce Bwindi and the three main controversies that have featured at this national park since the 1930s.

1.2. Bwindi Impenetrable National Park

Bwindi Impenetrable National Park is a forest of 321 square kilometres located in south-western Uganda, bordering Democratic Republic of Congo to the west and Rwanda to the south (see map 1). The forest is considered to be a remnant of a large area of forests that covered most parts of central Africa characterised by rich plant and animal diversity resulting from the high altitudes (Butynski, 1984b; Zaninka, 2001). Because of this diversity, ecologists consider Bwindi an important "evolutionary factory and storehouse of genetic wealth – a potential source of new foods, fibres and drugs, as well as knowledge"(Butynski, 1984b: iii). Ecologists often describe Bwindi as a "pleistocene refugium" and "major catchment area and a source of water to surrounding rural communities" (Cunningham, 1996: 6).

The Batwa are believed to have inhabited Bwindi and used fire to manipulate the Bwindi forest as far back as 32,000- 47,000 years ago (Cunningham, 1996). This is further believed to be the earliest evidence of cultivation in tropical Africa (Hamilton,1974). As more tribal groups immigrated into central Africa, they established farmlands by clearing parts of these forests, leaving fragments of the forests distributed over three central African states: Uganda, Congo and Rwanda (Hamilton, 1974; Butynski, 1984a). The forest-dwelling

communities lived off the forest, while the farmers depended on the forest for timber, minerals, medicinal plants and game meat.

Due to the challenges of rapid forest conversion and numerous human activities such as pit-sawing, hunting, gold-mining, agriculture and settlement, conservationists felt an increasing urge to protect not only Bwindi, but also all forests in other parts of Uganda (Hamilton, 1987). The process of protecting Bwindi forest and its biodiversity started in 1932 when various forest enclaves were progressively combined. First, two enclaves were gazetted as Kasatora and Kayonza Crown Forest reserves. These enclaves were extended to the Impenetrable Central Crown Forest Reserve in 1948 (IUCN-WCMC, 1994). Due to the increase in trade in timber, gold and tea, a road was opened up in 1957 for easier access to these commodities (Butynski, 1984).

In 1961, all the forest enclaves were combined together to the present 321 square kilometres. The resultant forest was further institutionalised by declaring it an animal sanctuary to provide extra protection of the mountain gorillas (IUCN-WCMC, 1994). However, most human activities, such as gold-mining, hunting, harvesting of timber and other plants, were still permitted (Wild and Mutebi, 1996). In 1984, ecologist Thomas Butynski conducted an ecological survey of Bwindi forest and indicated that the forest had been severely degraded. Based on these survey results, Butynski further recommended that all road constructions should be prohibited, and the impenetrable forest should be declared a National Park to restrict all human access and activities in the forest (Butynski, 1984a). As a result, the forest was declared Bwindi Impenetrable National Park in 1991 (Butynski, 1984a; Butynski and Kalina, 1993; Uganda Wildlife Authority, 2014a).

The changed conservation status of Bwindi implied restrictions on further construction of access roads, removal of all human settlements and gardens from the forest, as well as a halt on the entry into the forest and harvesting of forest resources. The restrictions and loss of access to the forest had far-reaching impacts on all who depended on it for survival such as the Batwa hunter-gatherers, the gold-miners, pit-sawyers, farmers and traders who travelled through the forest. As a result, the years that followed were riddled with protracted conflicts between the park officials and local communities (Wild and Mutebi, 1996; Baker et al., 2012). Gorilla tourism with a revenue sharing arrangement was introduced to provide alternative

sources of income whilst conserving biodiversity (Butynski and Kalina, 1993). Gorilla tourism was made possible by habituating some gorillas to human presence, otherwise they would flee in fear (Nkurunungi, 2013).

1.3. Batwa, roads and gorilla habituation controversies at Bwindi

Over time, gorilla habituation and tourism has turned out to be a highly contested conservation intervention. Elevating the conservation status to a National Park that restricts access and use of forest resources, further construction of access roads, and removal of forest-dwelling tribes have also remained controversial. Below I will introduce these three controversies in more detail.

1.3.1. The Batwa controversy

As described above, the Batwa of Bwindi are considered to be the first human inhabitants of the forest, dating as far back as 32,000 - 47,000 years ago (Cunningham, 1996). The Bakiga, Bafumbira and Bakimbiri communities currently settled around Bwindi forest are thought to have been the major encroachers on the forest for agriculture. With their long history of living in the Bwindi forest, the Batwa specialised in guiding early colonialists, prospectors and scientists through the forest and to the gorillas, making use of their skills in navigating the thick vegetation and their ability to locate exact locations where the gorillas lived (Pitman, 1935).

The situation, position and rights of unlimited access to the forest, the Batwa's home, came to a halt shortly after Bwindi was declared a National Park (Mukasa, 2017). Contradicting stories exist about what happened to the Batwa after Bwindi became a National Park. One story indicates that by the time Bwindi was turned into a National Park, all the Batwa were already living on the fringes of Bwindi forest, so nobody had to be moved (Uganda Wildlife Authority, 2014b). Other histories are more critical about the process, emphasising that removing the Batwa from the forest left them landless, and only a few of them were compensated with insufficient amounts of money (Zaninka, 2001). Eight years later, in 1999, the GEF funded Bwindi Mgahinga Conservation Trust (BMCT) purchased 69.7 acres of land and distributed it to only 10 per cent of the evicted Batwa who needed land (Mukasa, 2014: 12). This purchase was further supplemented by charities such as the Adventist Development and Relief Agency (ADRA), and the Kinkizi Diocese and Kellerman Foundation (Mukasa, 2014).

Important to note is that Batwa do not have legal ownership (land titles) for the said parcels of land.

Over time, the Batwa, together with Civil Society Organisations, have demanded restitution of their rights of ownership and access to their traditional homes – the forests. By the start of this study, some Batwa, through the United Organization for Batwa Development in Uganda, had petitioned the Ugandan Constitutional Court “seeking recognition of their indigenous status and access to Bwindi forest and redress for historic marginalization and discrimination arising from their eviction from ancestral lands” (Beyeza-Mutambukah and Zaninka, 2016). Until now, the case remains unconcluded. However, there have been heated debates around the marginalisation of the Batwa. In these debates, the Batwa are always portrayed as poor, vulnerable and marginalised victims of conservation and development processes as detailed in chapter 2.

1.3.2. The Gorilla habituation controversy

Gorilla habituation makes gorillas accessible for veterinary intervention, research and tourism, and has contributed to increased numbers of gorillas (Robbins et al., 2011). At Bwindi, gorilla tourism has generated revenues for the government, for conservationists and some local communities who work directly and indirectly in the gorilla tourism economy (Sandbrook, 2010; Ahebwa, 2012). As a result, some local residents and actors in the tourism industry who benefitted from tourism revenues started demanding the habituation of more gorilla families for tourism. This demand has, as detailed in chapter 3, spurred relentless debates between scientists, residents, tourism actors and conservationists about the ethics, threats and sustainability of habituation in relation to community wellbeing (Laudati, 2010a; Goldsmith, 2014; Nkurunungi, 2013).

Butynski and Kalina (1998) caution that habituating 70 per cent of the mountain gorilla population for tourism will discredit tourism as a tool for conservation. Habituation exposes the gorillas to human presence, thus increasing the risk of disease transmission (Woodford et al., 2002). Additionally, Knight (2009) argues that increased exposure to human presence may involve stress and otherwise generate negative experiences for the gorillas. Such degenerative effects may include nutritional, physiological and psychological stress; behavioural changes; reduced reproductive success and ecological disturbance (Muyambi, 2006; Butynski and

Kalina, 1993). Apart from the risk of diseases, Macfie and Williamson (2010) note that habituation to human presence increases the risk of gorilla poaching. There are also ethical considerations that compromise the welfare of gorillas (Goldsmith, 2005). In both accounts for and against habituation, gorillas only seem to have been turned into what Rinfret (2009) has termed docile and useful bodies for scientific research, and the tourist economy.

1.3.3. The Ruhija road controversy

Before Bwindi forest was converted into a Protected Area, the forest supplied all kinds of resources for local communities: medicinal plants, game meat, food, shelter, timber, gold and minerals (Blomley, 2003). In the 1950s, local communities demanded the construction of a road to facilitate the transportation of mainly timber and minerals. As a result, the Ruhija road was made in 1957 by clearing part of the vegetation through the forest, but was not paved (Butynski, 1984). However, ecological reports (Butynski, 1984) and policy documents that guide the conservation and management practices of Bwindi have always discouraged the construction and paving of roads in Bwindi. These reports argue that more roads would expose the forest and wildlife to human destruction, especially by local communities, through poaching, and road accidents.

Although these demands seemed to have been kept at bay for several years, there have been renewed efforts to pave the Ruhija road since 2011. The Ruhija road is one of the roads earmarked as a tourism road for prioritised paving in an effort to increase the competitiveness of Uganda's tourism sector (GSTA, 2011). The idea being that a paved road means a more comfortable trip to the mountain gorillas of Bwindi. Moreover, the road also opens up markets for local produce such as tea, in addition to access to health and education facilities (Weiss and Messerli, 2012). With such arguments from planners and economists, the government of Uganda, through the Uganda National Roads Authority [UNRA], published a notification of intention to procure contractors to construct several roads in July 2012.

This publication in the local newspaper was challenged by conservationists. They conducted a detailed economic assessment of the planned route through the forest and other potential routes outside the forest. The assessment report challenges the 'paving of the impenetrable' and proposes re-routing the Ruhija road outside the park. The report argues that this would be the best option to reach more households while saving the forest and

gorillas from the risks associated with road paving, such as road kills (Behm-Masozera, 2014; Barr et al., 2014). Since then, debates about whether or not to pave or divert the road continue between private and public tourism actors, conservationists, residents, government and non-government actors as well as donors. However, until now, the road has neither been paved nor re-routed, as detailed in chapter 4.

1.3.4 Three controversies, three actors

It is clear that for the three controversies, people, gorillas and the Ruhija road are treated as singular and isolated entities that are source of conflicts. On one side, local communities feature as the main threat to biodiversity conservation (Harrison et al., 2015), and as victims of gorilla conservation, especially the Batwa, who are portrayed as having been pushed to the ‘margins of society and life’ by conservation processes (Tumushabe and Musiime, 2006). On the other side, we see scientists, planners, ecologists and managers whose daily practices involve identifying causes of the controversies with a view of resolving them. Gorillas are considered as one of the species at Bwindi with particular predictable characteristics and behaviour that can be moulded by following given ecological procedures. The Ruhija road features as a static object that facilitates, or hinders, the travel to and from Bwindi.

All in all, the Batwa, the gorillas and the Ruhija road are studied, discussed and analysed as fixed elements, influencing conservation and tourism development processes at Bwindi. Yet, we realise that for over twenty years, the controversies have persisted. The persistence of these controversies calls for a rethinking of: 1) the subjects of these controversies beyond their fixed physical attributes; and 2) controversies not as negative forces to be avoided or quickly resolved. Doing so implies using a different analytical lens that can shed a different light on controversies in conservation and tourism development processes. In this thesis, the relational perspective deployed by Actor Network Theory (ANT) is used as a useful starting point for rethinking the controversies at Bwindi.

1.4. Actor Network Theory, relational agency, enactment and multiplicity

As an alternative to the prescriptive and reductionist perspectives, a relational perspective offered by Actor Network Theory (ANT) is used to engage with reality as enacted in particular relations with multiple actors (Mol, 2002; Michael, 2016). ANT’s relational

ontology opens up our analysis to the particular ways in which humans, animals and materiality contribute towards the making of our worlds (Michael, 2016; Mol, 2010). Inspired by these insights, the analytical assumption in this PhD thesis is that Bwindi, gorillas, people, roads, conservation policies and others are effects of relations with the entities they continuously interact with (Law, 1999). From such a stance, the sensitising concepts of relational agency, enactment and multiplicity are deployed to rethink Batwa marginalisation, gorilla habituation and paving of the Ruhija road. This provides room for more creative modes of engaging with chaotic and complex conservation and development issues at Bwindi.

1.4.1. Relational agency

In early philosophical thought, agency had been largely associated only to intentionality and rational choice, evident in writings of philosophers such as Nietzsche and Kant (Barker, 2003). Later conceptualisations of agency emphasised relationality, arguing that agency is enacted in relations among entities where both humans and non-humans enable each other's actions (Michael, 2016). The understanding of the latter conceptualisation in this thesis is that even particular intentions or choices are still made within relations. This implies that indeed some actors can make a rational choice to act in a particular way, but still, this will be in interaction with others. Further, such a choice also induces other actors' actions or causes a significant effect in such a way that the absence of particular actors would imply the absence of the entire network or phenomenon. Yet, with the conviction that no actor acts alone, it is more productive to talk of relational agency rather than agency of a particular actor.

Drawing on such convictions, in this thesis, I refrain from taking the government, conservation, tourists, gorillas, NGOs, Batwa or otherwise as the sole determinant of conservation and tourism development at Bwindi. Rather, I highlight how the activities of the Batwa, gorillas and the Ruhija road in relation with other actors work together to make and sustain conservation and tourism development (Law, 2015). To illustrate this, I mobilise another sensitising concept, namely enactment, to understand how relational agency is constituted in practice.

1.4.2. Enactment

Actors act (Mol, 2010). They not only act but also inter-act, re-act as well as counter-act others or even their own acts. In so doing, they enact different realities, different versions

of themselves and the actors they get involved with. In turn, these “actors are enacted, enabled, and adapted by their associates while in their turn enacting, enabling and adapting these” (Mol, 2010: 260). Such an “alternative position is analytically radical because it treats realities as effects of contingent and heterogeneous enactments, performances or sets of relations” (Law, 2015: 127). This implies that realities of Batwa, gorillas and roads, as well as conservation, tourism and development, including the representations of such realities, are simultaneously enacted (Law, 2015; Mol, 2002).

Through the concept of enactment, efforts to only uncover the powers or structures that drive conservation and tourism and development can be transcended, to understand how these are made or brought into being in relations (Law and Urry, 2004), and the “powerful productive consequences” that these enactments have (Law, 2004a: 56). As such, this thesis attends to the unending process of making landscapes, gorillas, peoples and so on. A process that is not only related to their history, but that also gives them “a complex present, too, a present in which their identities are fragile and may differ between sites” (Mol, 2002: 43). Yet, it should be kept in mind that enactment is an open-ended process (Law, 2004b), which implies that even the products of these enactments – be it actors, policies, practices or other phenomena – are volatile. Because realities of, in this case, landscapes, gorillas, Batwa, roads and others are enacted in various practices (Mol, 2002), it follows that these realities too are multiple. The sensitising concept of multiplicity therefore adds to our understanding of how human and more-than-human agencies are constituted and how different actors contribute to this process.

1.4.3. Multiplicity

So far it is clear that, analytically, there is not a single actor or network, or enactment, but that different actor-networks and enactments co-exist. These multiple enactments are interdependent, in tension as well as in collaboration and negotiation (Mol, 2010; Mol, 2002). Now that is one form of multiplicity. Another view is that that multiplicity can be traced from singularity. For example, while commenting on Mol’s study of medical practice, Law notes “atherosclerosis of the lower limb may be multiple, even in the same patient” (Law, 2004b: 6). This implies that gorillas, roads, Batwa or the Bwindi landscape are not one, but exist in multiple versions commensurate with the relations in which they are enacted. As a result, a gorilla, road or Batwa may simultaneously assume multiple subjectivities.

To understand this multiplicity at Bwindi, this research pays attention to the “networked and fluid capacities of actors” and the multiple modes of ordering or discourses that shape and are in turn shaped by the actors’ networking processes (Van der Duim et al., 2013: 8). By using these three concepts, the hope is to stimulate a rethinking of particular assumptions about Batwa, gorillas and the Ruhija road, and generally, conservation, tourism and development at Bwindi.

1.5. Research question

In this thesis, the main question to be researched is:

What are the roles of human, animal and material agency in producing controversies at Bwindi?

1.6. Methodology: Following the actors

ANT-informed research follows a traditional qualitative research approach and related methods, and predominantly relies on case-study design – usually focusing on exemplar cases (Law, 2009: 143). A case-study design was adopted because it permits in-depth and intensive exploration (Kumar, 2014) of the more-than-human relations that co-produce particular conservation, tourism and development realities. Bwindi has been labelled a celebrity site for scientific research and experimental conservation and development interventions (Tumusiime et al., 2018). Thus, Bwindi provides a typical case for such an exploration.

Within the conservation, tourism and development debates at Bwindi, a first analysis showed that there were embedded cases pertaining to the marginalisation of Batwa, threats from gorilla habituation and increased contact with humans, as well as proposed road constructions. As a result, a “single case with embedded units” was adopted specifically to be able to consider the role of each of the cases (Baxter and Jack, 2008: 550) on conservation, and tourism development processes.

Case-study design is central to ANT-inspired studies. In adopting this design, the researcher is further advised to use methods that will enable a slow and painstaking, but worthwhile, process of *following the actors* to trace as many relations as possible (Latour 2005). ANT-methods intersect with other methods such as multi-sited ethnography and

mobile methods (Sheller, 2014). Drawing on the above insights, a variety of methods was employed during nine months of fieldwork spread over 2017, 2018 and 2019.

I followed the three actors (the Batwa, gorillas and the Ruhija road) through the method of participant-observation on the move (Sheller, 2014) such as walk-along (4) and drive-a-long (5) trips; in addition to unstructured interviews (123), village visits (4), and document study (134 documents). For the walk-along observations, I joined tourists, scientists and trackers during their activities in the forest, and project staff during their project visit to the Batwa. I also drove along with different users of the Ruhija road (farmers, traders, UWA staff, conservationists, and NGO project staff), spent days with Batwa families joining them in some of their daily activities such as collecting water, and I engaged project staff in discussions about the ongoing and upcoming Batwa projects.

All this data was triangulated with feedback obtained from presenting preliminary findings in meetings, workshops and conferences, social gatherings and press briefings. At the end, I conducted a thematic analysis of the interview, observation and FGD notes, scientific and unpublished documents, news stories and social media posts to identify the key patterns of ideas arising from a critical interpretation of both explicit and implicit information contained in the responses, gestures, reports and comments (Braun et al., 2019).

1.6.1. Positionality statement

First and foremost, I acknowledge together with other ANT-scholars that the used methods mean participating in the enactment of realities rather than discovering or depicting them (Law, 2004a), implying that this too, is a particular enactment of realities about controversies at Bwindi. As a native Ugandan woman from the Bakiga – one of the numerically dominant tribes in southwestern Uganda – I have been connected to Bwindi through research and consultancy work since 2008. Currently, I represent Kabale University on the Kigezi Tourism Cluster Platform – a multi-stakeholder initiative – where policymakers, private operators, and researchers share information about and engage in regular debates around conservation, development and tourism in the Kigezi region (southwestern Uganda). My tribal background, and previous research and consultancy engagements granted me privileged access to information, activities and updates regarding tourism, conservation and community development in the region. However, I am aware that such a position also put me at a risk of taking particular details for granted and of course it comes with its own biases. This awareness

enabled me to relate my local observations with the wider debates and experiences that I gained during my Master and PhD courses at Wageningen. This background largely influenced the choice of my methods and analytical focus as explained below.

While in the field, I resisted the temptation to go to the field with predetermined questions; rather, I just visited the site, listening in to conversations of various groups of people like the local residents, the Uganda Wildlife Authority field staff, various project staff and trying as much as possible to take all observations and conversations seriously, even those that were seemingly obvious or could be regarded as trivial, such as changing clothes to suit the road conditions, or Batwa telling their eviction stories, or trackers having to imitate gorillas' actions. Secondly, I had to use various methods such as observations, document study, village stays and participating in daily activities to ensure that my data was not biased due to my personal attachments and prior thoughts about the cases. In addition, I constantly tried to rethink my observations, my feelings and information obtained from participants by probing further, making follow-up calls and visits during data analysis and changing interviewing venues. For example, when I changed the setting of one of the interviews, I got different responses from the same participant. To validate these contradicting views, I contacted different people to hear different opinions. For example, while dealing with the Batwa case study (Chapter 2), most of the local and official narratives around the Batwa seemed to confirm the historical stories that I have always heard about them. However, reflecting on multiplicity pushed me to opt for village visits so that I could pay attention to the daily practices in which the Batwa are involved.

In addition, I consulted other researchers who had spent a longer time exclusively researching the Batwa and project team members who have stayed longer with the Batwa. Similarly, for the gorilla case, I joined research, tourist and scientific teams to personally experience what it is like to be with the gorillas in the forest. To avoid taking my feelings and observations for granted, I consulted ecologists and biologists who have studied gorilla behaviour for longer periods of time. For example, I inquired if my interpretations of the gestures and body language corresponded with the known interpretations. In some cases, I was wrong.

My various connections not only provided me with particular privileges, but also, undeniably, brought about various tensions that I had to deal with in the field. Some of my interviewees were colleagues in research, or fellow members of the platform. Others were friends from the community or strangers who I never met before, and it felt as if my role of researcher might have been blurred during our interactions. For example, during the long village visits, there were times that I felt that my interviewees had given me very personal information, such as their 'secrets' of navigating through various restrictions. During the writing phase, I deliberately left out such information.

During one of the village stays, one of the community leaders requested of me to take on an advisory role during two negotiation meetings. I also recall that, in one of the meetings, I had to intervene when one of the representatives of the Batwa was blamed for declining one of the tourists' request to dress 'authentically' (in dirty rags) and pose for photos. I felt that this was inappropriate, so I argued that the blame was not justified. I think that this reaction may have been viewed as taking sides. In other cases, I felt that some people viewed me as a 'spy'. For example, when my Batwa assistants invited me to one of the indigenous minority groups meeting, the organisers denied me access to that meeting even when he mentioned to them that he was the one who had invited me. Moreover, I had interviewed the NGO-leader who was hosting the meeting before. In this case, I think that I may have missed out on some relevant information.

There were also instances when my research participants did not give me detailed information, because they felt that I already knew since I was a resident of that area. This was evident in the repeatedly-used phrase, "You also know how things here work". So, most likely they did not get into as much detail as they would do for someone who is not a resident. I tried to probe as much as possible, but admittedly was very careful not to make them uncomfortable by probing further. During later chats outside the interview setting, for example during a joint drive, or around a fire place in the evening, they talked about some of the things during our conversations. At a personal level, I always felt a bit guilty to include these informal conversation data in my research, yet this information was too vital to be left out. As a result, through the analysis and writing phase, I often made phone calls to ask them to clarify certain points they mentioned during our conversations and I informed them that these pieces of information were very important for the study. In the end they accepted and,

in some cases, even provided more information and evidence (e.g. letters and other documents) of what they had referred to.

1.7. Outline of the thesis

After this introduction, Chapter 2 focuses on human agency, specifically the Batwa who are presumed to have been the most affected by conservation and tourism development processes. In this chapter, I enumerate how the agency of the Batwa is discursively reduced in society, science, government legislation, tourism marketing and conservation practices. Furthermore, this chapter highlights how the Batwa reproduce, engage with, and counteract these marginalising discourses.

Chapter 3 deals with how the agency of the gorillas is enacted in and through habituation, and how these processes shape the Bwindi landscape. So, this chapter reconstructs habituation as a relational process and explicates how the gorillas engage in multiple relations with other actors consequently contributing not only to their own conservation and the tourism economy, but also impacting the spatial configuration of the Bwindi landscape.

Chapter 4 explores the role of material agency in conservation and tourism planning processes. I explicate how the changing material conditions of the Ruhija road, and entanglement of the road with other actors in commuting, planning and touring practices enacts different roads and controversies. Most importantly, I demonstrate how the same road not only led to controversies about paving or not, but later also pacified the conflict.

In the final chapter, I describe the conclusions of this research on the how Batwa, gorillas and the Ruhija road not only contribute to the controversies, but also to the conservation and tourism development processes at Bwindi. In addition, I discuss the implication of a more-than-human perspective on conservation, tourism and community development practice at Bwindi.

Chapter 2:

The most marginalised people in Uganda? Alternative realities of Batwa at Bwindi Impenetrable National Park, Uganda



This chapter is published as:

Ampumuza, C., Duineveld, M., and Van der Duim, V. R. (2020). The most marginalized people in Uganda? Alternative realities of Batwa at Bwindi Impenetrable National Park. *World Development Perspectives*, 20, <https://doi.org/10.1016/j.wdp.2020.100267>

Abstract

Indigenous peoples such as the Batwa in Uganda are predominantly seen as marginalised groups, leaving little room for foregrounding their power, influence and involvement in tourism and development. Inspired by Foucauldian discourse theory and Actor-Network Theory [ANT], we use the concept of relational agency to analyse how the Batwa contribute to conservation and tourism development, and deepen our understanding of agency in the context of the Batwa at the Bwindi Impenetrable National Park (Uganda). Based on this conceptualisation we analysed the dominant (academic and non-academic) discourses on the Batwa in the light of in-depth ethno-graphic research to seek for alternative Batwa realities. Whereas scientific, NGO and governmental literature predominantly reduced the Batwa to marginalised, poor and oppressed victims of development, our ethnographic research observed the Batwa as a vibrant community that deploys expertise on forest ecology, tourism entrepreneurship, organisational capacity and political activism. With such insights we discuss the consequences of agency reduction and the ways to take the Batwa's situational agency into account. Highlighting the multiple realities of Batwa-ness provides a starting point of relating with the Batwa in ways that acknowledge them as agential, rather than only marginalised.

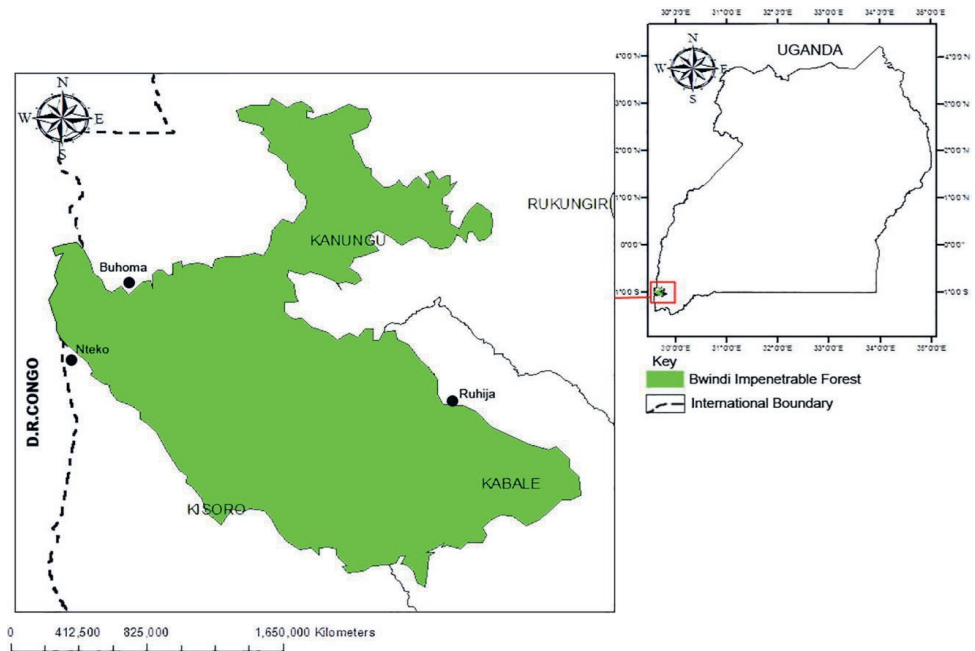
Keywords: Marginalisation, Discourse, Actor-Network theory, Conservation, Development, Batwa

2.1. Introduction

Globally, the position of indigenous people in conservation and tourism development debates is highly polarised. On the one hand, post-colonial and critical scholars predominantly portray indigenous people as victims of conservation and tourism development processes, marginalised and dispossessed of their land by governments and powerful consortiums of conservation organisations (Mbaiwa, 2016). On the other hand, some anthropologists have emphasised that indigenous peoples have always conserved and utilised wildlife better than anybody else (Kideghesho, 2008). Cunha and De Almeida (2000, p. 322) add that anthropologists' emphasis on the "agency of the indigenous peoples" led to the establishment of the International Alliance of the Indigenous-Tribal Peoples of the Tropical Forests, and acknowledgement of the role of indigenous communities in conservation at the 1992 Rio Summit.

Drawing on insights from Foucauldian discourse theory and Actor-Network Theory, this paper uses the concept of relational agency to engage with these debates in the context of the Batwa of Bwindi Impenetrable National Park, south-western Uganda. We analyse the dominant marginalisation discourse in the light of ethnographic observations to highlight the agency of the Batwa in conservation and tourism processes at Bwindi. People who identify themselves as Batwa are found in Africa's great Lakes region covering parts of Uganda, the Democratic Republic of Congo, Rwanda and Burundi (Kidd, 2014).

The Batwa are seen as the first inhabitants of the Central African Forests, also known as the 'domain of the bells', referring to the bells on the collar of the hunting dogs of the Batwa (Nzita, 1992; Zaninka, 2001). In Uganda, the "majority of the Batwa, 66 per cent (3706 people), were found in western Uganda in of Kisoro, Bushenyi, Kabale, Bundibugyo and Mubende districts" (Kabanankye, 2011: 278). Out of the estimated 6200 Batwa currently living in Uganda (Uganda Bureau of Statistics, 2016), more than half (3463) live in 43 villages in the districts neighbouring Mgahinga and Bwindi Impenetrable National Parks [BMCA] (Kakuru, 2016), with major concentrations at Buhoma and Rubuguri (Butynski, 1984b: 22). Bwindi forest is located in south-western Uganda (see Map on next page) on the eastern edge of the Albertine rift valley.



The United National Environmental Programme-World Conservation Monitoring Centre UNEP-WCMC (2011) describes Bwindi as “one of the largest areas in East Africa which still has Afromontane lowland forest extending to well within the montane forest belt”, resulting in high biodiversity. The Batwa are believed to have been the first inhabitants of this forest, before the Bafumbira, Bakiga, Bakimbiri and Banyarwanda agriculturalists moved into the area (Kabanankye, 2011; Zaninka, 2001). Over time, Bwindi forest was designated various protection statuses and in 1991 it was declared Bwindi Impenetrable National Park. Currently, the park is a renowned destination for gorilla tourism (van der Duim, Ampumuza and Ahebwa, 2014). The conservation process of Bwindi and implications on Batwa is summarised in Table 1.

Table 1: Bwindi conservation status and implications for Batwa

Chronology of events and Bwindi status	Implication for the Batwa
Pre-1932-gazettement period	<ul style="list-style-type: none"> • No policy regarding the protection of Bwindi forest. • The Batwa had full access and control of the forest imposing levies to caravans. Feared warriors who would occasionally be hired as war mercenaries/warriors by Rwandan Tutsi Kings in case of an invasions from the Hutu tribes (Zaninka, 2001; Kabanankye, 2011, Kidd, 2008; Mukasa, 2008). • Practiced silent trade with farming settlers (Unpublished compilation from Bagorogoza Christopher, 2019). • Paid homage and danced at royal ceremonies in the Kings' courts.
1932 two forests gazetted as Kasatoro and Kayonza crown forest reserves by the British colonial office	<ul style="list-style-type: none"> • The forest continued to be economically and culturally important and accessible for the Batwa.
1942 The BINP & MGNP were combined and gazetted as impenetrable central crown forests	<ul style="list-style-type: none"> • The colonial office strategy was conservationist, but respected the Batwa's rights and access to the forest (Mukasa, 2014)
1961 'The entire Reserve was gazetted an Animal Sanctuary under the Game Preservation & Control Act of 1959, as amended 1964, to grant additional protection to the mountain gorillas' (UNEP-WCMC, 2011: 2).	<ul style="list-style-type: none"> • The report by FPP and UOBDU finds no clear effects of the policy on the Batwa at that time (Mukasa, 2014)

1964 The Forest and Farm Act were introduced in Uganda

- Use of hunting dogs, possession of hunting weapons, residing, hunting, and farming in the forest was made illegal (Mukasa, 2014) and residence inside the forest was prohibited (Butynski, 1984).

The 13th August 1991 resolution turned the two forest and game reserves into Bwindi Impenetrable National Park by Statutory Instrument #3, under the 1952 National Parks Act ((Mukasa, 2014; UNEP-WCMC, 2011)

- The Batwa were permanently evicted and restricted from accessing the forest, without any resettlement and compensation (Mukasa, 2014).

1993: gorilla tourism was officially opened at Bwindi

- Despite the Batwa's extensive knowledge of the forest, they could not secure jobs in conservation and tourism departments because they lacked formal education ((UNEP-WCMC, 2011).

1995: Bwindi Mgahinga Conservation Trust was established. The Dutch Embassy provided additional funding to the Trust focused on the Batwa component of Trust's work. One of the conditions of the US\$ 2.7 million for 1997 to 2000 fund from the Dutch government was for the Trust to implement a mechanism for representation of the Batwa as a discriminated group.

- Various reports indicate that it has taken quite long to implement the objectives of this fund (Kenricks, 2000; Kidd, 2014; Mukasa, 2014). Meanwhile, Kakuru (2016) reports that the BMCT has so far bought 406 acres of land for the Batwa.

2000 the United Organization for Batwa Development in Uganda (UOBDU) was founded

- Batwa representatives started processes of engaging various local and international actors.

June 7, 2011 a tourism product, the Batwa trail, was officially launched.

- Batwa employed as tourist guides in Mgahinga Gorilla National Park.

13th February 2013 UOBDO petitioned Constitutional Court of Uganda seeking recognition of their rights and redress of long-time marginalisation

- By the end of this study in 2020, this court case had not yet been concluded. So, the Batwa were still engaged in these legal processes.

April, 2019 the Bwindi Batwa Forest Experience was launched as one of the tourist activities of Bwindi Impenetrable National Park

- Batwa employed as site guides at the various sites in the forest. A Batwa music and dance group was formed.

The Batwa of Bwindi Impenetrable National Park [Bwindi] have been at the heart of national and international conservation and tourism development debates. The majority of the publications portray the Batwa as marginalised victims of conservation and tourism development-induced evictions (Kidd, 2014; Mukasa, 2017). In academic and non-academic literature, Batwa are depicted as an icon of poverty, marginalisation, discrimination and forest dependency (Musinguzi, 2016; Stafford and Garcia, 2016; Tumusiime, Bitariho and Sandbrook, 2018a; Turyatunga, 2010).

As an exception to much of this literature, Kajobe (2007) acknowledges the Batwa's vast knowledge of stingless bees and Tajuba (2015) describes how Batwa have conserved their forest culture amidst the strong waves of modernity and development. Drawing on these few accounts, our assumption is that the dominant discourses on marginalisation may have overlooked other co-existing Batwa realities and 'important facts' that could inform policy interventions with a better and more grounded understanding of Batwa life (cf. Kabanankye, 2011).

Our main contribution in this paper is to present an alternative analysis of the Batwa situation that pays attention to the complexities and relations that produce the multiple realities of the Batwa, other than singular accounts of seemingly passive victims of

conservation and development processes. We argue that Batwa are incessantly entangled in various relations within and outside their communities to produce multiple realities beyond and perhaps overcoming marginalisation and victimisation.

To do so, we use a Foucauldian and Actor-Network Theory [ANT] inspired conceptualisation of the *enactment* of *situational agency* (Menzel, 2018) to analyse the various mechanisms and processes that *enact* particular versions of Batwa-ness (Middelveld, van der Duim and Lie, 2016; Ren, 2011). Thus, we move beyond oppressor-oppressed dichotomies towards an understanding of how communities engage in multiple relations with other actors to co-create development and conservation.

This article proceeds as follows. We will first introduce our conceptual framework and methods used. We will then examine dominant and counter-narratives regarding the Batwa and end with a discussion on multiple situational agency and conclude that marginalisation is performed, has performative effects and is sometimes challenged through counter-narratives and practices.

2.2. Enacting agency: in/from discourses in/to practices

In this paper we use the concept of enactment to understand how particular forms of agency are produced, challenged and negotiated. Our point of departure is that anything that appears real becomes so only because it is enacted as real (Mol, 2002). According to Law, (2009) and Michael (2017), reality is enacted and distributed in discourses, practices, technologies, and bodies. Understanding the detailed mechanisms through which realities are enacted necessitates unpacking the processes through which particular realities are produced and distributed.

In this article we will do so by first problematising the discourses through which the agency of the Batwa are discursively produced, and thereafter compare this to a situational understanding of Batwa agency in actual practices. We will first elaborate how discourses author a singular view of agency, followed by some critiques on this approach. Then we will provide a perspective on agency as multiple and situational. In this view, we explain how various forms of agency can coexist in multiple enactments simultaneously producing both discursive and situational agency.

2.2.1. Discursive agency

A Foucauldian conceptualisation of discourses focuses on dominant discourses and often assumes that subjects and objects are produced within discourses without problematising the agency of the subjects involved: their resistance, refusal to be categorised, incentivised, subjugated, or disciplined (Dressler, 2014; Gregory and Vaccaro, 2015). Implicitly, such studies assume “that individual subjects will incorporate control mechanisms and internalise norms (...) and that this leads to new publicly auditable forms of self-regulation” (Rap and Wester, 2017, p. 293). This particular view of discourse tends to “author a single account of reality” (Law, 2004, p. 122) or, in this case agency, as reserved for the powerful governmentalities or structures at the expense of multiplicity, difference, alternatives and complexity. Therefore, we agree with Rap and Wester (2017) and McKee (2009) that the consequences of dominant discourses or governmentalities (like co-shaping of certain subjectivities, policies and practices) should not be taken for granted. Although dominant discourses make it hard for alternative realities to be spread (Beunen, Van Assche, and Duineveld, 2013), such alternatives co-exist alongside dominant realities.

To say that discourses have consequences implies that discourses are performative. So, we use the concept of performativity to analyse these consequences (such as agency reduction and the ‘benefits’ thereof). Tomassini et al. (2019) argue that discourses can prompt actors to act in ways that conform to the story they tell. Yet, discourses can also fail, or create new subjects. More importantly, people never act alone, but only and always through a variety of networks (Law, 2008; Ren, 2011). Social action implies agency, which shapes people’s varying social practices and collective responses to policy and governmental technologies in specific social and institutional contexts (Rap and Wester, 2017). We further elaborate this idea through the concept of situational agency.

2.2.2. Situational agency

In line with ANT’s relational conceptualisation of agency, we assume that agency is not a possession. It is not something one can have, but a relational outcome. It is enacted in relations among various heterogeneous actors – thus a reality effect of such enactments (Michael, 2016; Latour, 2014; Law, 2000). Limited, no or strong agency arises from the different ways in which actors relate to different sets of other actors in particular situations (Menzel, 2018; Ren, 2011). This conceptualisation of relational agency is very much in line

with Foucault's notion of power (see e.g. Foucault, 1976). His perspective is that power is always relational: "Power in process is power that needs to be reproduced in a recursive manner, from one event to the next one. (...) such a concept of power, away from object–subject distinctions, away from moralising too, and away from rigid subject–structure distinctions" (Van Assche et al., 2014: 2389).

A relational conceptualisation of agency implies that it becomes imperative to describe the relations and practices that: a) enact the dominant single story – in this case, marginalisation; b) enact other alternative stories – beyond marginalisation (Law, 2015) and; c) reality effects of such enactments "rather than seeking to determine who or what imposes or determines what" (Ren, 2011, p. 862). It is in view of such insights that we find the combination of discourse analysis and ethnographic fieldwork appropriate for a detailed understanding of how Batwa agency is enacted.

2.3. Methods

For this qualitative study, the first author purposively selected five villages surrounding Bwindi. Four of the five villages were selected based on their level of development as described by the Batwa research assistants as: poorest of the poor (1), moderate (2), and advanced (1). The fifth village (Ruhija) was selected for the uniqueness of its establishment as an upcoming, yet popular, settlement for tourism that started through an agreement between the Batwa and an individual entrepreneur from a neighbouring tribe.

Ethnographic village visits were conducted by the first author who also participated in daily activities permitted by the residents, work- shops, conferences and project meetings. These visits enabled participant observation of day-to-day activities of the Batwa, as well as how the Batwa engaged with each other, neighbours, NGO staff and their environment.

In addition, the first author conducted 23 unstructured interviews with persons drawn from Batwa-NGOs (4), non-Batwa NGOs supporting Batwa (5), Uganda Wildlife Authority (4), local leaders (5), lodges that support the Batwa (2), researchers who have spent more than 20 years working around Bwindi (2) and one news reporter. Recurring topics during the interviews were descriptions of the Batwa by both Batwa and non-Batwa, daily practices and engagements with the Batwa, non-Batwa and their environment.

Additional data, especially on discourses, was obtained through an extensive study of various documents (government and NGO reports, tourist blogs, social media posts (Facebook), websites that promoted the Batwa experience, reviews of the Batwa experience posted on TripAdvisor between 2016 and 2018, and newspaper articles reporting about the Batwa of Bwindi from 1988 to 2018 (accessed via LexisNexis database). Thematic analysis was conducted to identify the key patterns of ideas (Braun, Clarke, Hayfield and Terry, 2019) arising from a critical reading and interpretation of both explicit and implicit information contained in the responses, gestures, reports and comments. Using NVIVO 12 software, we ran word frequency and text search queries. The results were organised into a word tree that guided the formulation of major themes.

2.4. Dominant Batwa narratives: Marginalised and victimised Batwa

In the papers, reports and media, we observed that the Batwa are described as passive victims of powerful forces of conservation and tourism development processes, marginalised through their eviction from the forest. Even when the Batwa are described as being involved in tourism, they are portrayed as mere objects of the tourist gaze other than active and engaged subjects negotiating this gaze (Laudati, 2010). The marginalisation narrative has become so popular, that Kawczynska (2014) pondered the possibility that the Batwa are the most marginalised people in Uganda. We will now dissect these discourses and explain how the Batwa are discursively observed as bio-ecologically unique, primitive victims, vulnerable and poor.

2.4.1. Bio-ecological uniqueness

In various scientific articles the Batwa have been delineated from other tribes by their physical/biological make up: their stature/height, their facial features, and how they are supposed to live. Their relatively short stature, for example, is linked to forest habitation (Arnold, 2014; Fagny et al., 2015; Perry et al., 2014; Stafford and Garcia, 2016). The bio-ecological-cultural differentiation also appeared in metaphors used by some NGOs:

The forest is like an umbilical cord to the Batwa like it is to a child and its mother (...). Whatever is to be done for the Batwa should include forest access for the revival of the Batwa culture (Interview with UOBDU staff, 2017).

Expressions of distinctiveness linked to the Batwa's forest habitation were also implied in policy documents. According to the Uganda National Culture Policy of the Ministry of

Gender, Labour and Social Development [MGLSD], the term indigenous communities refers to “*distinct tribal groups indigenous to a particular area*” (MGLSD, 2006, p. 39). The emphasis on difference [variation] in relation to a particular environment seemed to emphasise that indigenous people like the Batwa are not capable of surviving away from forests (Zaninka, 2001).

2.4.2. *Primitive subjects*

Next to the assumption of the Batwa’s bio-ecological uniqueness, the lifestyle of the Batwa is often described as primitive based on where they live, their dress code, and how they conduct their daily life. In local newspapers, some journalists compared the Batwa with other communities and described them as:

forest people who (...) continue to be discriminated against, because of their way of life that seems primitive to other communities (...) still lead a purely traditional way of life by hunting game meat and collecting fruits from the forests (...) do not seek medical care from the conventional health facilities, but use herbs to treat their ailments.

(Womakuyu and Sejjengo, 2010:16)

Another popular idea among NGOs is that the Batwa are incapable of saving food, money and other resources for future use. They only survive on subsistence means dominated by handouts from NGOs and philanthropists and dependence on nature. Banbury, Herkenhoff, and Subrahmanyam (2015) list begging as one of the multiple subsistence economies of the Batwa. Probably the most implicit description of the Batwa as people whose mindset is set on short-term survival is:

mostly uninterested in subsistence strategies requiring long-term investments, many Batwa chose economic activities with quick returns on labour ... day labourers, bards and performers in the countryside...

(Lewis, 2000, p. 5).

This discourse was also evident in the agreements that defined the relations between NGOs and the Batwa for particular projects, such as the land occupation agreement between the Batwa and BMCT. Section 3 of the agreement states that: “the beneficiary(s) is not allowed

to sell or mortgage the demised land unless with a written consent by the Trust Administrator acting on behalf of the Trustees”. When asked about the reason behind such restrictions, most NGO staff justified these restrictions by saying that the Batwa could easily sell the land in exchange for alcohol (UPCLG, 2017, Interview with director of Batwa-led NGO 2, 2017).

In tourism, the primitive ‘image’ of the Batwa is marketed as an authentic lifestyle. Almost all tourism promotional materials (brochures, websites of tour operators and promoters of the Batwa tourism experience) marketed the Batwa experience as one of the ‘must do’ activities, after gorilla tracking. These advertisements are dominated by high-resolution coloured pictures of Batwa scantily dressed, ready to show- case their primitive life. On the website Batwaexperience.org tourists were encouraged to book, and experience “ecotourism at its best” where the displaced Batwa help you to take a step back in time to experience ancient life.

2.4.3. Victims

Tales of the eviction, displacement, landlessness and poverty of the Batwa abound in almost all scientific and media articles, conversations, meetings, press conferences, tourism conferences, films and video clips about the Batwa. For example, the Unrepresented Nations & Peoples Organization [UNPO] cited National Public Radio [NPR]’s reporter, and stated that “when the Batwa forest people of southwest Uganda lost their forest, they lost their identity” (Burnett, 2012, p. 1). Academic scholars argue that the Batwa have been consumed by a powerful system and consortium of conservation and development corporations that have dispossessed them of their land and heritage (Kenrick and Lewis, 2004). Similar opinions dominate other scientific publications about the Batwa, (Balenger, Coppenger, Fried and Kanchev, 2005; Laudati, 2010; Moncrieffe, 2008; Namara, 2006; Tumusiime et al., 2018b).

Within policy discourses, ethnic minorities have been reduced to groups of people marginalised by development processes. For example, the Ugandan Ministry of Gender, Labour and Social Development [MGLSD], classifies ethnic minorities like the Batwa as:

people who face a number of challenges including displacement from their homes of origin, disruption of their way of life, high levels of income poverty, (...) often excluded and marginalised in the development process.

MGLSD (2011, p. 17)

The media too play a significant role in portraying the Batwa as victims of conservation, and especially gorilla tourism development. Media reporter Musinguzi (2016) explains that “in the 1990s, the Batwa became casualties of a battle to save forests when what they called home, the Mgahinga and Bwindi forests were protected as national parks” (Musinguzi, 2016: 20).

2.4.4. Vulnerable and poor subjects

Most academic reports indicate that the Batwa are living in extreme poverty due to alienation from their basic resources – the forest – and due lack of other resources to fall back to (Lewis, 2000; Turyatunga, 2010). Lewis (2000, p. 20) asserts that the Batwa – “who owned the forest and had lived there for generations without destroying it or its wildlife” – became one of the poorest tribes solely because they were evicted. Similar narratives are also told by NGOs, CSOs and other activists. For example, the home page of the United Development Organization of the Batwa Development in Uganda [UOBDU] states that:

most were left landless and impoverished (...). Today, the Batwa experience ongoing erosion of their cultural, spiritual, and social traditions, along with widespread social, political, and economic marginalisation.

(UOBDU, 2017, p. 1)

In the media, a *LexisNexis* search of the terms Batwa and Bwindi returned 94 articles mainly highlighting the plight of the Batwa. Notably, the British Broadcasting Corporation (BBC) published a news-paper article describing the Batwa’s situation as follows:

several ramshackle huts of sticks and grass lie scattered among the boulders. (...) these are the homes of the Batwa. They have lived here in abject poverty since being expelled from the forests they lived in as part of a much lauded conservation programme in the 1990s.

(Trenchard and Marrier-d’Únienville, 2016, p. 5).

2.5. The performative effects of the dominant marginalisation narratives

Based on the dominant narratives about the Batwa, in general, we note that both academic and non-academic literature describe Batwa as victims of marginalisation, incapable of taking care of themselves and the future of their community. In short, passive subjects only

occupying the subservient position in all their relations with others. This discursive reduction of Batwa to helpless victims had particular effects: it elicited sympathy, legitimised associated philanthropic projects, donations, and financial flows towards addressing the vulnerability of the Batwa.

Various 'help/support' schemes are in place to support the 'forgotten people': selling a book about the Batwa (Womakuyu and Sejjengo, 2010), volunteering trips and fundraising campaigns for a 'tribe in peril' (Blackburn, 2006; Mutebi, 2016; Scoon, 2016; Young, 2018) and financial flows. For example, in 2012 the U.S. Agency for International Development (USAID) invested 31,000 USD to train Batwa people to serve as guides and to improve lighting, walkways, and shelters along the Batwa trail (East African, 2012). The Bwindi Mgahinga Conservation Trust spent 35,220 USD to support Batwa projects for the financial year 2013/2014 (Bwindi Mgahinga Conservation Trust, 2014). More recently, the Mbarara University of Science and Technology received 39,000 USD from the Indigenous Peoples Assistance Facility [IPAF] to build capacity of the Batwa for sustainable income generating enterprises including a Batwa forest experience trail for tourists in the southern part of Bwindi forest (Interview with Researcher, 2019). In addition, UOBDU together with two other local organisations; Pro-Biodiversity Conservationists in Uganda and Karamoja Women Cultural group received a grant of 49,000USD from World Bank to, among other things, build capacity of indigenous communities to engage with REDD + processes (World Bank, 2017).

All the media, academic and NGO reports that we analysed repetitively referred to the Batwa as 'landless people'. It is therefore no wonder that all the NGO's reports mentioned that they had bought or were planning to buy land for the Batwa, either in addition to or instead of giving handouts. The Bwindi Mgahinga Conservation Trust alone reported to have bought 400 acres for the Batwa and resettled 375 households between 1996 and 2015 (Baker and Brinckerhoff, 2015, p. 10). Yet, that was not all there was to say about the Batwa. Our ethnographic observations indicated that the Batwa were also actively involved in many other relations and activities.

2.6. Counter-narratives: Alternative Batwa realities

As soon as the first author arrived in the field many of the ideas and problems that dominated the Batwa realities 'on paper' were verified. Even the racist discourses from eco-literatures. People from neighbouring communities often pointed to the Batwa's physical and

facial features, such as short stature and relatively hairy face, in attempts to explain how to identify the Batwa from others (Interview, transporter, 24.08.2017). Additionally, politicians (Interview, political leader, 18.07.2017), neighbouring communities and some Batwa (Interview, Batwa representative, 16.03.2017) indicated that Batwa children often dropped out of school while elders sold utensils and other donations for alcohol (Research Interviews with NGO staff, 23.07.2017; 24.07. 2017).

Even some Batwa referred to themselves as 'poorest of the poor' and 'marginalised'. This is illustrated by this excerpt from an interview with one of the leaders of a Batwa-founded NGO who indicated that:

I think that we the Batwa also have a weakness. I think that we could spend less than what we do on alcohol (Interview, leader Batwa-led NGO, 2018)

However, the fieldwork not only confirmed what has already been said about the Batwa, but also observed many Batwa as highly engaged and active people. This reality was reflected in stories and practices of the Batwa that portrayed them as forest ecology experts, tourism entrepreneurs, resource managers, community developers and political activists.

2.6.1. Forest ecology experts

Batwa contribute to various research projects by sharing their forest ecology expertise based on their interactions with various animals, plants, caves and waterfalls (Batwa Bwindi Forest Experience (BBFE) project meeting, February 2019). They share their knowledge on plants, animals, and products such as honey. As one of the Batwa elders employed by the ITFC explained:

there is no part that I do not know about Bwindi, that is why I have been able to help many national and international researchers to attain their degrees.

(Interview with Batwa elder, Ruhija, 2019)

During meetings and conversations, Batwa emphasised their forest ecology expertise to challenge the ability of Uganda Wildlife Authority scientists and rangers to effectively understand and conserve the Bwindi forest. They frequently argued that those who studied ecology in the classroom could never be better conservationists than they, who spent many years in the forest (Conversation with Batwa elder, 25.08. 2017).

The forest ecology expertise of some of the Batwa was also recognised by an ecologist:

(...) he could provide accurate information to facilitate research (...) was an excellent guide (...) was often referred to as professor or GPS (...) was able to identify chimpanzee tools used for harvesting different types of honey (...) knew almost all the plants in Bwindi.

(Interview with Behavioural Ecologist, 19.10. 2018)

The second story was told by one of the UWA staff employed in the research and monitoring department, and confirmed by the research assistant. While commenting on the role of Batwa in research, the UWA staff recalled that:

a herd of elephants was getting closer to our camp deep in the forest, one of the Batwa on our team assured us that he could herd those elephants. (...) He got up, took some ash and engaged the hugest elephant in kind of a circus movement by whipping it at its buttocks. Indeed after a few rounds, the elephants moved. (Interview, UWA research and Monitoring staff, 25.08. 2017)

This expertise of the Batwa was acknowledged in 1991 by Allan Hamilton, who proposed that their knowledge of the forest could help to locate kidnaped tourists (Sengupta, Buncombe and McCarthy, 1999). Other projects that have utilised the Batwa's expertise include the P3DM and Participatory Mapping by Batwa for the conservation of mountain gorillas in Bwindi (Haas and Muchemi, 2011), the Batwa Cultural Values project (Flora and Fauna International, 2013; Nuwamanya et al., 2015), and Kajobe (2007) research on the nesting biology of equatorial Afro- tropical stingless bees at Bwindi, as well as several other field activities of the Institute of Tropical Forest Conservation (ITFC) (Interview with ITFC and UWA staff, 2017; 2019). Beyond these narratives, the Batwa's ecological expertise was evident in how easily they guided us in the forest compared to the non-Batwa guides, never losing their way. In addition, during the village visits, the Batwa women eloquently explained about the various plants, their habitat and dyes that can be extracted from each plant to make crafts.

2.6.2. Tourism entrepreneurs

The Batwa were and are involved in developing, designing and selling product for tourism. Some Batwa also own and run tourism enterprises, either as individuals, groups or in

partnership with other people. The enterprises include the Batwa forest experience, Batwa craft shops, and a Batwa homestay accommodation. This is illustrated by the following extract from a conversation with the Batwa of Sanuriro:

This (...) is our visitor centre. We sweep the floor so neatly and spread a special type of grass on the floor (...) and entertain our guests in this hall (...) guests have a choice to either pitch their tents in here or stay in our guest house over there (Conversation with Batwa women, 26.07. 2017)

Members of the same village explained that their vast knowledge of plants enabled them to produce more marketable souvenirs made with natural dyes (Conversation with Souvenir shop attendant, 26.07. 2017). These observations reflect another reality of people who draw on their experiences with the forest to innovate, create and form relations with other actors such as businesses, other community members and tourists.

2.6.3. Community developers

The Batwa have established and actively participate in Batwa-only NGOs and various associations. These Batwa-led NGOs have played an important role in establishing relationships and networks with other actors (donors, anthropologists and other researchers) to secure scholarships for Batwa students, purchase land for the Batwa, establish livelihood projects, as well as in negotiating policy changes and representing fellow Batwa in national and international dialogues (Group Interview, Kalehe, 2017). These institutions illustrate Batwa's self-organising capabilities.

Our observations of the Batwa's negotiations with other partners revealed that the Batwa valued honesty, togetherness and sustainability. To illustrate these values, we draw on the response by one Batwa leader to the suggestion that the alcoholic Batwa should be excluded from the project benefits:

they are drunkards and careless but (...) we have to focus on their future potential, not on the current problem (Batwa leader, 11.06.2019)

Besides, some Batwa were engaged in activities such as mining, teaching, tourist guiding, stone quarrying and agriculture in addition to daily home chores and leisure activities. In all conversations, most of the Batwa constantly associated Batwa-ness with hard work,

dynamism, precision, creativity and intelligence. Based on our field observations and interactions, we are inclined to agree to a great extent with their assertion.

2.6.4. Political activists

As said before, some activists, authors, media, community and Batwa people concluded that the Batwa are not politically active, because they do not hold any political position. These observations seem to be correct; we could not find examples of Batwa that are formally in a political position. Yet they were and are involved in political processes. Some of them indicated that they chose not to vie for political positions at the start, but rather to mobilise their colleagues to support the political applicant who demonstrated concerns for their issues. This position was confirmed by politicians: “these people are Ugandans, they vote” (Interview, Local Leader, 18.07. 2017).

In addition, Batwa have been and are still involved in several negotiations, advocacy campaigns and other engagements with politicians. For example, as early as 2009, Batwa expressed discontent with their conditions and made their intentions known to petition government over land (Baguma, 2009). In 2014, Harrisberg reported that:

two elder members of Uganda’s Batwa tribe, travelled (...) on an eleven-hour bus ride (...) to see President Yoweri Museveni, and ask him, first hand, when they would be able to return to their home in the aptly named Bwindi Impenetrable Forest (...) They wanted reparation (Harrisberg, 2014, p. 1).

Since then, Batwa continued their engagements with government actors. In January 2018, the leaders of the Batwa Development Organisation wrote a letter to the Prime Minister of Uganda highlighting their concerns, and a request to “establish a special committee to critically look into the issues of the Batwa community in Uganda” (Semajeri, 2018, p.2). On 27 March 2018, the Prime Minister convened a meeting to discuss the March 2018 letter. Thereafter, a technical committee was constituted to further analyse Batwa issues with a view of replicating the process with other minority groups in Uganda (Semajeri, 2018). These events illustrate that Batwa’s activism has contributed towards keeping the Batwa debate on the national agenda.

2.7. Conclusion and discussion: Agency reduction, performative effects and situational agency

In this paper we critically analysed the claim that the Batwa are the most marginalised people in Uganda. We looked at how discourses reduced the Batwa into passive victims of conservation and tourism development, and how the Batwa internalised and reproduced this version of Batwa-ness alongside an actively engaged Batwa-ness. We conclude that marginalisation is performed, has performative effects and is sometimes challenged through counter-narratives and practices.

2.7.1. The performativity of agency reduction/marginalisation discourse

The version of marginalised Batwa-ness has been produced through those narratives and practices that, using Mol's (2010) observation, give most credit to 'external forces' such as conservation and development actors while underrating the Batwa. The portrayal of the Batwa as a specific, homogenous group of marginalised people discursively strip-ped them of any form of agency by depicting them as helpless victims, pushed to the margins of society through conservation and tourism development processes (Harrisberg, 2014; Laudati, 2010; Moncrieffe, 2008; Mukasa, 2017; Trenchard and Marrier-d'Únienville, 2016; Zaninka, 2001). Therefore, the most prominent effect of these dominant discourses is the production of a passive, marginalised, and helpless Batwa unwittingly following directions to stage or participate in activities purely designed by their oppressors (Laudati, 2010).

The Batwa have internalised some of these discourses and reproduced them by telling stories about their plight, either directly to tourists and other people or via social media. We further observe that agency reduction through often sensational, one-sided and stereotypical, reporting keeps certain practices and money flows in place, elicits sympathy and legitimises philanthropic projects and donations.

Our observations echo debates within the planning and development literatures where the ongoing discursive foregrounding of problems, failures and shortcomings are interpreted as instrumental to organisations (Mosse, 2005). Conservation and tourism development were thought to create win-win situations for local communities and conservation (Ruan and Xiao, 2003; Spenceley, 2012). This view has been challenged by some authors such as Roe and Elliott (2006), while others have totally dismissed this view as either a false promise or a false premise (Tumusiime and Vedeld, 2012). Our nuanced analysis has

indicated that the implementation of conservation, tourism and development interventions is not a straightforward process as it produces various realities that might not be fully reconciled. Rather, these dynamics are inherent in such processes. As Van Assche, Beunen, and Duineveld (2012, p. 578) argue:

Failures, in terms of local and regional development, are a necessity for the system to reproduce itself. (...) The answer to planning problems is more planning, and this necessitates the constant finding (and hence discursive creation) of planning problems (...).

For academics, agency reduction is a result of the discourses they help to reproduce, but also productive for reproducing certain claims made within critical scholarship. Academics, who, for example, are part of a wider discourse that is critical of conservation and development, who work in a tradition that constantly highlights the perversions of neoliberal governmentalities for local communities, will more likely focus their empirical work on these negative consequences (Büscher et al. 2012; Igoe and Brockington, 2007) than on the adaptive capacities of communities.

Secondly, as Jean-Klein and Riles (2005:176) argue, research can be part of a focus on 'victims', which often involves co-construction, that is, "moral and analytical engagement with subaltern subjects in the field of study (...), which becomes the medium through which moral and social or political support is administered". However, we reiterate that it is obvious that such one-sided accounts that tell single stories will not escape the pitfalls of agency reduction, such as further victimisation or, even worse, institutionalising victimisation and marginalisation, because all accounts, critical or otherwise, are performative (Jeffery and Candea, 2006). Following Jeffrey and Candea's (2006) observation, it is imperative that we highlight other perspectives, such as the Batwa's multiple agencies, instead of only dwelling on marginalisation.

2.7.2. Taking into account the Batwa's multiple situational agency

Agency reduction, we argued, can be seen as a way to legitimise practices of organisations (NGO's, governments) and academics. Since it is a self-reinforcing mechanism, other directions or alternative, more complex understandings of situations become overlooked or under-studied (Van Assche et al., 2012, p. 579). Our deliberate attempt to

provide a different understanding of the Batwa by means of a ethnographic study challenged previous reductionist narratives about the Batwa as objects of the tourist gaze (Laudati, 2010), or as being marginalised to near extinction (Harrisberg, 2014; Stafford and Garcia, 2016; Trenchard and Marrier-d'Únienville, 2016; Tumushabe and Musiime, 2006).

Although discourses have disempowering effects (Hancock and Georgiou, 2017), we note that agency can be discerned even in seeming passivity. For example, that the Batwa have contributed to the sustained enactment of the marginalisation narrative alongside other forms of Batwa-ness is, in our view, a manifestation of how particular relations enact agency, and others a lack of agency. Thus, in line with Bergthaller, (2014), we argue that agency is not a property of subjects or organisations, but is enacted in discourses and practices of marginalisation as well as through active engagement. Deconstructing one-sided accounts of Batwa-ness, and analysing them as multiple, complex and enacted, enables us to view the Batwa as knowledgeable resourceful conservationists, amidst marginalisation. It is this kind of knowledge that could inform policymakers and NGOs, among others, to think about other modes of relating with the Batwa that acknowledge, enhance and utilise their existing conservation and ecological expertise.

Chapter 3

Gorilla habituation and the role of animal agency in conservation and tourism development at Bwindi, South Western Uganda



This chapter is published as:

Ampumuza, C. and Driessen, C. (2020). Gorilla habituation and the role of animal agency in conservation and tourism development at Bwindi, South western Uganda. *Environment and Planning E. 0(0)*. 1-21. <https://doi.org/10.1177/2514848620966502>.

Abstract

Discussions of gorilla habituation often emphasise human control of gorillas, whereby gorillas are usually singularly defined by their species membership. This perspective leaves little room for imagining the role of gorillas in habituation, conservation and tourism development processes. In this paper, we use insights from Actor Network Theory and more-than-human geography to explore and reconstruct the practice of gorilla habituation in order to understand gorillas as actors in habituation, conservation and tourism development at Bwindi Impenetrable National Park (here-after Bwindi), Uganda. To do so, we use the concept of relational animal agency to trace the various ways in which gorillas interact with each other, various groups of people, and their environment. Ethnographic observations, unstructured interviews and document study indicate that gorillas are 'multiple' and thus need to be understood beyond their species membership alone. They are involved in intricate relations with each other, with other non-human and human subjects, and their shared environment. Furthermore, gorillas are not completely and passively controlled by humans through habituation: we argue that habituation as a relational process is more complex. Gorillas also habituate other gorillas and arguably can be seen to habituate humans as well. As a result, gorillas co-produce multiple versions of the Bwindi landscape, of conservation, tourism and development practices, as well as multiple ways of being gorillas. Based on these insights, we argue that instead of focusing on control, the dynamics between gorillas and their landscapes could be harnessed to explore a dynamic range of possibilities for living together with gorillas, while continuously adapting to issues that will arise in places such as Bwindi.

Keywords: Animal agency, gorilla habituation, Bwindi landscape, conservation, tourism

3.1. Conservation, tourism and the Bwindi gorillas

Gorilla habituation tends to be studied as a fully human-controlled process, leaving little room for imagining an active role for the animals themselves. This article reconstructs mountain gorilla habituation using insights from Actor Network Theory (ANT) and more-than-human geography to highlight the role of non-human or animal agency in conservation and tourism at Bwindi.

In Uganda, gorilla habituation is practiced in Bwindi and Mgahinga Gorilla National Park. Bwindi is a forest of 321 km², described as a high-altitude Afromontane forest (UNEP-WCMC, 2011). The area is characterised by steep and high hills and a rich biodiversity (Butynski, 1984). The animals in Bwindi include mountain gorillas, chimpanzees, a variety of monkeys, birds, duikers, elephants, all living amidst various kinds of insects, trees, plants and micro-organisms (Butynski, 1984; Butynski and Kalina, 1993; Uganda Wildlife Authority, 2014). According to the last count, 459 individuals of the global mountain gorilla population of 1063 live in the Bwindi–Sarambwe ecosystem (Hickey et al., 2019). The other mountain gorillas live in Virunga National Park (Democratic Republic of Congo), Volcanoes National Park (Rwanda) and Mgahinga National Park (Uganda).

Prior to the conversion of Bwindi forest into a National Park, local communities had unrestricted access to the forest. The Batwa hunter-gatherers lived in the forest and completely depended on it. The neighbouring Bakiga, Bafumbira, Bakimbiri, Bahutu and Batutsi agricultural tribes accessed the forest for bushmeat, plants, timber, gold, building materials and fish (Blomley, 2010; Namara, 2006). When the Bwindi forest was converted into a National Park, all human activities in the park were prohibited because humans were seen as threats to the mountain gorillas and the forest (Blomley, 2003; Olupot et al., 2009). The Batwa lost access to ancestral homes, and both Batwa and other communities lost their livelihoods, which led to animosity and conflicts (Baker et al., 2012; Blomley, 2003).

In order to address the conflicts, Integrated Conservation and Development Programs (ICDPs) such as Multiple Use Programs, and gorilla tourism with a revenue sharing scheme were introduced (Ahebwa, 2012; Blomley, 2010). There is a body of literature that analyses the effectiveness (Ahebwa et al., 2012; Tumusiime et al., 2018), injustices (Adams, 2013; Kidd, 2014; Tumusiime and Sjaastad, 2014; Tumusiime and Svarstad, 2011) and potential risks (Butynski and Kalina, 1998; Muyambi, 2006) arising from implementing the ICDPs.

This article focuses on gorilla habituation – a process that makes gorillas viewable (Knight, 2009). At Bwindi, an hour of gorilla viewing costs 650USD,¹ and is envisaged to generate revenue for conservation and development projects (Archabald and Naughton-Treves, 2001; Ahebwa et al., 2012). Due to the popularity of gorilla tourism, the demand for habituated gorilla families has grown, and by 2018, their share has increased to 42% of the Bwindi gorillas (Hickey et al., 2019). The increased demand for habituated gorillas has raised concerns among some scholars about the control and commodification of the gorillas at the expense of local communities' livelihoods (Laudati, 2010b).

Furthermore, conservationists such as Butynski and Kalina (1998), and Goldsmith (2014) worry that increasing the number of habituated gorillas comes with health risks for gorillas. In these debates, habituation is presented as a one-dimensional relationship where certain people and their institutions (conservationists, governments and scientists) completely control the gorillas, the habituation process, gorilla tourism and conservation. While this may seem to be the case, we opt to analyse habituation from a relational perspective that pays attention to the role of gorillas in these processes.

A relational perspective emphasised by ANT and more-than-human geographies, starts from the assumption that reality (of agency, structures, conservation, gorillas and habituation, among others) arises from complex relations between humans and non-humans. Following this understanding, we trace the various relations and the realities that ensue in the context of gorilla habituation. Through this, we seek to problematise the current narrative on gorilla control and commodification by highlighting the details of what happens in the process of habituation. We further reflect on the implications of this relational perspective for conservation and tourism practices at Bwindi. In the next sections, we will first review debates on gorilla habituation to set the context. Next, we will elaborate our theoretical positions before discussing the results of nine months of fieldwork in the area.

3.1.1. Habituation of Bwindi gorillas

According to Williamson and Feistner (2003), habituation refers to a process where people (usually scientists and their assistants) repeatedly make non-threatening contacts with gorillas until they lose their fear and ignore the presence of humans. In other words, the people 'become an innocuous part of the gorillas' surroundings' (Gruen et al., 2013: 25). Gorilla habituation by scientists emerged from field ethology (Fossey, 1974) and in situ

conservation. Gorillas were the first species to be conserved in situ, after they were found not to survive in captivity (Cincinnati, 2015).

Gorilla habituation by scientists started in Rwanda after German colonial army Captain Von Beringe and, later, other Western scientists (Louis Leakey, George Schaller, and Dian Fossey) 'discovered' the mountain gorilla (Van der Duim et al., 2014). Notably, Dian Fossey camped in the forests of Rwanda, recruited other conservationists and local residents to 'make friends with the gorillas' (Fossey, 1970, 1972), eventually habituating them to human presence. Fossey describes habituation in terms of human presence amidst gorillas no longer influencing the behaviour of the animals:

Daily attempts to establish contact with group 4, or other groups were made throughout the study period (September 1967 to August 1972 inclusive). Before the animals were habituated [. . .], contact with the observer might have altered the speed with which the group travelled, though probably not its range: at this time therefore, obscured observations (the presence of the observer was not known to the group) were especially valuable. Subsequently, open contacts were attempted only when the group was reasonably secure, obscured observations being made when the group was exploring new terrain, in areas where it might meet extraneous interference. However, group 4 is now so completely accustomed to the observer within its midst, that the speed or direction of travel is no longer affected by observations. (Fossey, 1974: 571)

Drawing on experiences from Rwanda, gorilla habituation was introduced at Bwindi in 1991 with three gorilla families: Katendegye with 11 individuals, Mubare with 13 individuals at Buhoma and Kyagurilo with 18 individuals at Ruhija. The Kyagurilo group at Ruhija was habituated for research purposes, while the two families at Buhoma were habituated for tourism (Kabano et al., 2014). Although mountain gorilla habituation is considered to be an effective conservation tool (Goldsmith, 2014; Robbins et al., 2011), there is controversy over the risks associated with habituation and tourism.

Some scholars argue that habituation enables accurate identification of animals and the close study of their behaviour (Gruen et al., 2013). Moreover, Robbins et al. (2011) explain

that gorilla habituation also allows easy access for veterinary interventions in case of disease outbreaks. Kabano et al. (2014) add that habituation enables gorilla ecotourism, which generates economic value that could benefit neighbouring communities, while also financing conservation activities and research. Other scholars argue that habituating more than 70% of the gorillas for tourism will discredit tourism as a tool for conservation because a larger number of gorillas will be exposed to human presence (Butynski and Kalina, 1998). Woodford et al. (2002) indicate that exposure to humans will increase the risk of disease transmission. Also, Knight (2009) argues that exposure to humans may involve stress, thus generating negative experiences for the gorillas. Stress and other effects such as behavioural changes, reduced reproductive success and ecological disturbance may compromise the well-fare of gorillas (Butynski and Kalina, 1993; Muyambi, 2006).

3.1.2. Towards a more than human understanding of wildlife/gorillas

In the above debates about habituation and its effects, the gorillas feature as a singular and static species that are controlled for the benefit of humans, in terms of economy, pleasure and science. Yet, in everyday practices of conservation and wildlife research, scientists and conservationists often take animals seriously as individual subjects such as in their descriptions of individuals and their behaviour. They approach gorilla families as particular groups with specific characteristics that can enter into complex relations with humans.

This everyday active role of gorillas is usually glossed over as irrelevant in most social science literature on conservation, such as in critical accounts of the political ecology of conservation (Brockington, 2002; Duffy et al., 2015) and conflicts around protected areas (Laudati, 2010a; Laudati, 2010b). Even work on human–wildlife conflicts often focuses attention solely on human experiences and responses, whereby the role of wildlife is assumed to be static, animals performing their generic species-specific patterns of behaviour.

In this perspective, the so called extreme conservation measures can be seen as an expression of a form of biopolitics that combines care with intervention and far-reaching intrusion into the lives and bodies of individual animals in the name of species conservation (cf. Srinivasan, 2014). And, habituation for the tourism economy is viewed as commodifying gorillas and their charismatic presence for their ‘encounter value’. Such a perspective arguably positions animals politically as exploited workers, performing emotional labour to generate surplus value (Barua, 2017). The view of human–animal relations that portrays animals only

as objects of the 'tourist gaze' (Laudati, 2010a) leaves out the role of wildlife – the subjects/objects (de Silva and Srinivasan, 2019) of conservation, in the process of their own conservation. Haraway (2008) indicates that the relations emerging while producing this encounter-value go beyond the mere extraction of economic worth from Western tourism consumers.

Additionally, there are some scholars who have demonstrated that wildlife is capable of actively and creatively responding to conservation measures and changes in habitats. For instance, the account by Mayberry et al. (2017) of the complexity of human–wildlife conflicts in Botswana describes the many ways in which elephants affect people and the importance for people to learn to interpret and respond to elephant behaviour. However, in this account, elephants appear as coming with fixed properties that are not affected by their encounters, leaving out of this dynamic the relevance of learning processes the elephants may individually and collectively enter into.

Additionally, through the concept of a 'contact zone', Haraway (2008) illustrates that a lot goes on at the interface between humans and animals. All participants in human-animal encounters can be found to actively configure the power relations in which they find themselves to be entangled, even if these relations are not symmetrical or in balance. Based on these insights, we argue that habituation may not necessarily be predicated on a one-way relationship of control and domination. Who is in charge in these encounters and who has crafted and is managing them is not so clear-cut (Haraway, 2008). The habituation process at Bwindi can be likened to a contact zone. Building on the complexities of human–animal encounters emphasised by Haraway and others, we deploy a relational perspective on animal agency to highlight how gorillas contribute to their habituation, conservation and the tourism economy at Bwindi.

3.2. Animal agency: A relational perspective

Throughout history, non-human animal agency and its many conceptualisations – intentionality, goal directedness, phenotypic plasticity, subjectivity, etc – have been a controversial subject in philosophical thought (Derrida, 2008; Oliver, 2009). Commonly, agency is understood as something that can be 'possessed' by individual humans or animals. For instance by psychologist Steward, who argues that 'the basic concept of agency is a very

early natural acquisition, which is established prior to the development of any full-blown propositional attitude concepts' (Steward, 2009: 217).

Some work, especially in the analytical style of animal philosophy, follows this line of thinking that tends to regard agency as something possessed by individuals and defined as intentional, predicated on (anthropocentric and humanist) understandings of intentionality and autonomy. This line of thinking implies that certain species of animals may have agency to some extent, deficient, however, from the agency of fully autonomous humans. Agency then is a (potential) characteristic of an individual, reflecting its species' capacities.

As such, animals are envisaged to have no or reduced agency when, for example, their movements are restricted by humans to produce docile and useful bodies for the tourist economy (Rinfret, 2009). The same applies when they are reared for consumption, when they are used to perform in a circus or to any other confinement of animals, while in fact complex and diverse relations can also be discerned in these situations (Palmer, 2002). Ironically, this position in animal ethics that emphasises the curtailing of agency may lead to an understanding of animals as essentially passive victims in any human–animal relation.

In recent liberal political theorising that acknowledges animals as political subjects in their own right (Donaldson and Kymlicka, 2011), a more complex picture emerges of animal political agency in relation to humans. Here, for instance even the mere presence of an animal can change a situation into a politically charged environment. Approaches developed in animal studies that seek to move the role of animals centre stage ascribe various forms of agency to non-human subjects (Nance, 2013; Swart, 2010). These scholars emphasise the idea that their presumed inability for intentional behaviour beyond instinctive responses, or our inability to unequivocally determine what the animal feels, thinks or chooses, is not as important as the various ways they can be seen to act in practice (Nance, 2013). In these studies, animal agency is illustrated by the animals' ability to attack humans and hide from human view (Martin, 2011), when animals display versatility and success in supposedly human-dominated environments such as cities (Hurn, 2015), or where animals seem to display various behaviours independent from human observation or interpretation (Bekoff, 2010).

Taking this form of thinking further, self-identified post-humanist or more-than-human scholars conceptualise animal agency not as a capacity that either is or is not 'possessed' by

individual animals, but something that can be enacted, performed, and that emerges in interactions and relations. Animal agency then is relational and plural. These studies refrain from reducing the animal to its agency (Carter and Charles, 2013). This relational approach does not necessarily stop at extending agency from humans to some selection of animals. Drawing on ANT and other post-ANT (Michael, 2016) theorising, agency has been taken to manifest in the capacity of anything – human or non-human – to produce effects and/or make a difference in the networks that distribute agency across various human and non-human actants (Michael, 2016; Sayes, 2014). In such entanglements, the difference/effect might take the form of authorising, allowing, affording, encouraging, permitting, suggesting, influencing, blocking, rendering possible, forbidding action of other actors (Latour, 2005). A set of terms that range from (seemingly) straightforward causal impacts and more muddled or distributed modes of change.

Michael adds that in these interactions, the animals too change together with other actors as they ‘enter into relations of emergence or becoming’ (Michael, 2016: 143). We are not to assume some essential difference between people and animals in order to appreciate this type of agency emerging from what are then to be understood not as ‘inter-’ but as ‘intra-actions’ (Barad, 2007) resulting in a trans-species entanglement (Chiew, 2014). This means not seeing either people or animals as separate individuals who enter into interactions to influence each other, while bringing their own essential and timeless qualities and capacities with them. Starting from a relational ontology, we can appreciate more-than-human subjectivity, to ‘move us from a concept of “the” subject as a stand-alone agent acting on the world, toward one of subjectivities – constituted in and through our affective relationships with others’ (Ruddick, 2017: 120).

Barua (2014), drawing on ANT, described wild elephant agency as emerging from their complicated entanglement with humans, the landscape and substances such as alcohol. The elephants that are displaced from their home ranges have grown accustomed to drinking the alcohol that is illegally brewed by small farmers. These elephants pay nightly visits to ‘raid crops’ and have learned to follow the smell of brewing alcohol. Here, animal agency is produced in a dynamic between humans, animals, the terrain and material substances, where experiences, motives, intentions and responses are all dynamically reconfigured. Conservation and managing human–wildlife conflict then gravitate around understanding

these dynamics as well as the emerging forms of animal agency in relation to their environment and to human responses.

So, on the one hand, in this view we need to take animals seriously as agents who act. At the same time, of course, we must realise that in processes of habituation particular non-human subjects may be produced, which undercuts a self-evident sense of 'non-human agency' as something exclusively driven by autonomous wild animals. Instead we – humans and gorillas and other non-humans – find ourselves in intricate processes of adapting and becoming. Processes that are always situated and ambivalent, not to be viewed as ideally harmonious or innocent, but inherently fraught and complex (Puig de la Bellacasa, 2017).

When wildlife conservation is no longer merely a matter of creating a protected area in which animals are left undisturbed, it is clear that we need to take animals and their changing interactions with various humans more seriously in the study of conservation processes. At the same time, a relational analysis of conservation is also important for understanding how animals as agents may respond to habitat loss and may get locked into a vicious cycle of stress and conflict with local inhabitants. To understand conservation under dynamic conditions, it is important to see how animals can actively take part in driving these dynamics, and to acknowledge the various ways in which their agency plays out in practice, partly driving the conditions of their own conservation.

3.3. Methods

Our reconstruction of gorilla habituation, conservation and tourism in Bwindi is based on an in-depth study of reports (Bwindi park management plans, UWA policy documents, scientific articles, monthly field reports of the Human Gorilla Conflict resolution (HUGO) teams (2016–2018) and the Nkuringo Buffer Zone management plan); (2) unstructured interviews with 55 people drawn from community members ($n = 11$), primate behavioural ecologists ($n = 2$), UWA managers ($n = 3$), staff of the lodges frequently visited by the gorillas ($n = 3$), six UWA field staff composed of senior trackers who habituated the gorillas ($n = 2$), ranger guides who walk visitors to the gorillas ($n = 2$), and research and monitoring staff ($n = 2$) who conduct the gorilla census and do other field activities, as well as tourists ($n = 30$). Data from these interviews were complemented with field-based walk-along observations and conversations by the first author who walked along with gorilla tracking teams, gorilla behavioural scientists and HUGO members during their field activities and information sharing meetings.

3.4. Habituation revisited: Multiple gorilla relations

Without habituation, gorillas exhibit a highly dynamic social life within and between families (Robbins and Robbins, 2018; Robbins et al., 2019). Additionally, they interact with people in particular ways. For example, prior to habituation, although both gorillas and humans normally avoided close encounters, gorillas at Bwindi occasionally raided people's gardens (Interview, community leader Ruhija, 2017). For example, according to the Ugandan Game Department archives, crop raiding by gorillas was first documented in 1933 when one of the wardens reported that, while the females and young ones quickly moved back to the forest when chased, 'males only moved when it suited them to do so' (UPCLG, 2013: 9). During habituation and because of tourism, a myriad of relations formed between gorillas and several groups of people, such as scientists, trackers, local communities, rangers and tourists. The first author's field observations and interviews with key informants indicated the following relations in the context of habituation and tourism.

3.4.1. Gorillas–habituation scientists

During the process of habituation, scientists and gorillas are involved in a series of intense exchanges which profoundly affect both. First, scientists look out for traces of the gorillas such as vocalisations, swishing or cracking branches and particular scents to locate the gorillas (Field notes, 2017). The gorillas 'detect the possible presence of humans based on the crackling sounds as scientists walk on dry leaves, and the human scents' (Interview, UWA ranger 1, 2017). The first visual encounter between the gorillas and scientists is always tense (Interview, senior tracker 2, 2017). Gorillas, presumably 'not sure if the scientists are there with good intentions or plan to harm them, keep on charging/threatening to attack' (Interview ecologist 1, 2017).

In turn, the scientists raise sticks while making calming grunts and carefully maintaining a maximum distance of 15 m. Furthermore, the scientists have to observe the bodily gestures of the gorillas and their vocalisations, and react to these by for instance grunting back in response to gorilla grunts and by mirroring their behaviour: sitting, picking and eating leaves, scratching their bodies whenever the gorillas do so. These encounters continue on a daily basis, and sometimes at night, for three months (Interview, senior tracker 2, 2017). Habituation is 'successful when gorillas accept human presence'. However, there are

cases when the gorillas remain aggressive to humans even after three months. In such unsuccessful habituation attempts, the trackers abandon that group and look out for another family (Interview, senior tracker 1, 2017).

3.4.2. Gorillas–rangers

The UWA rangers are responsible for the daily monitoring of gorillas, guiding tourists to the gorillas and participating in the gorilla census. The rangers indicated that habituated gorillas normally avoid unhabituated groups. When the two groups do meet, they usually fight (Interview, ranger 1, 2018). The rangers revealed that when habituated gorillas ‘experience or sense danger such as proximity of an unhabituated group or dogs, they move closer to the rangers’ camp’ (Interview, ranger 2, 2018). With such gestures, rangers feel that gorillas recognise them as their ‘friends’ and ‘protectors’ (Interview, UWA ranger 2, 2018). ‘Gorillas fear dogs’ (Interview, senior tracker 1, 2017).

Rangers attributed the fear of dogs to poaching: ‘Poachers do not target gorillas but other animals such as duikers and bush pigs. However, when gorillas fall into these traps and snares, they get injured and maimed’ (Interview UWA ranger 2, 2018). Rangers further reported cases where, upon seeing a snare, a gorilla approaches the ranger grunting as he/she moves insisting that the ranger should follow him/her to the spot where the snare is (Interview, ranger 2, February 2018). By facilitating the removal of snares, these gorillas participate in the daily conservation activities.

3.4.3. Gorillas–veterinary doctors

Another example of the intricate human–gorilla interactions was illustrated through gorilla veterinary practices at Bwindi. As mentioned earlier, conservationists thought that habituation would enable easy access to the gorillas for veterinary interventions. These obviously imply encounters between the veterinarians and the gorillas. Usually, during these encounters, doctors conduct regular check-ups for signs of illness. Where necessary, doctors collect samples from the body of the gorillas for further tests or treat the affected body parts (Interview, UWA Research & Monitoring Staff 2, 2017). In order to do so, doctors shoot a sick gorilla with a tranquiliser dart. However, the other gorillas do not always allow the veterinary doctors to get close to a sick gorilla for treatment:

In 2016, gorillas of the Rushegura family shielded a female gorilla, suspected to be ill, from being tranquilised by a veterinary doctor. The veterinary

doctor had previously treated another gorilla in the same group. When a gorilla is tranquilised, he/she temporarily falls to sleep. In this second attempt, when the same group of gorillas saw the doctor, they seemed to recall or associate the face of this doctor with a past experience when one of them fell in the presence of this doctor.

(UWA Research & Monitoring Staff 1, 2018)

As a result of

this memory, the gorillas moved restlessly while the silverback and other males guarded the suspected patient to the extent that the doctor just had to abandon the exercise for that day. The doctors returned the next day and managed to tranquilise the sick gorilla. (Interview, UWA Research & Monitoring Staff 1, December 2018)

With this example, the veterinary doctor arguably subjected the gorillas to stressful moments. Another way of understanding this situation is that gorillas play a central role in (un)successful veterinary interventions. When they quickly move close to the targeted gorilla, they prevent the veterinarians from treating the sick gorilla, or the veterinary interventions take a long time because of them. When they do not, the veterinary doctors gain access to the sick individual. It is in such relations where gorillas can block or allow a veterinary intervention that we discern agency.

3.4.4. Gorillas–local human communities

Prior to habituation, 'gorillas and residents avoided close encounters with one another. Accidental close encounters sometimes led to fatalities of either the gorillas or people' (Interview, community elder, Ruhija, 2017). After habituation, some gorillas move through people's compounds and gardens (FGD, Nyabaremura 2018). Community members are differentiated and so are their relations with gorillas. The Batwa people who inhabited the Bwindi forest seem to be more knowledgeable about the gorillas' behaviour than other community groups (Interview with ecologist 1, 2018). Similar observations were made by Pitman (1935) and Amir (2019). They relate to the gorillas at a spiritual level because Batwa consider gorillas to 'embody certain human spirits' (FGD, Kalehe, 2017; Interview with Batwa elder, 2019). With such relations, it can be argued that, with or without habituation, gorillas

can be considered as relationally agential. They evoke particular feelings. They have an influence on whether people proceed to hunt them or not, or whether they will harvest a particular field. Because if gorillas feed on the crops, that field will be abandoned (Interview with community elder, 2017).

A group of some Bakiga and Bafumbira people collectively known as HUGO (Human Gorilla Conflict Resolution Teams) are mandated to chase the gorillas back into the forest whenever they move onto community land. HUGO members seem to relate to gorillas by way of personally knowing the characters of individual gorillas rather than approaching them as a species or a spiritual being. This is illustrated in the ways members of HUGO teams describe their daily interactions with gorillas:

Most habituated gorillas respond to the drumming, whistling, ringing bells and threats (usually by raising sticks) by retreating to the forest. However, some individuals are 'stubborn' because they 'refuse' to move back into the forest especially when they are enjoying their favourite crops.

(Response during FGD, Buhoma HUGO team, January 2019)

To other residents, gorillas are 'not always dangerous. They only become problematic ("pests") when they leave the forest and eat their crops or get tracked on people's land' (FGD, Rubuguri, 2019).

From an ANT perspective, it is within such multiple relations that we discern gorilla agency. Agency that is not inherently possessed by the gorillas, but produced and distributed in relations with heterogeneous actors. The varied relations further produce other realities such as power relations, conservation interventions, conflicts between different groups of people (e.g. HUGO and community members), and between people and gorillas. Our interpretation therefore is that gorillas are not merely victims of power relations and conservation-related conflicts, as they take part in the production of these realities.

3.4.5. Gorillas–tourists

Gorillas are considered to be fully habituated when they 'allow tourists to visit them' (Interview, UWA tracker, 2017). However, this is not always the case. What gorillas will or will not do during tracking is never predictable. All tourists reported that gorillas continue eating,

playing, grooming and resting in the presence of tourists. Such encounters evoke particular feelings expressed in the tourists' recollections of 'moments when gorillas allowed them into their lives', and evoked feelings of 'being a part of nature' or being 'together with the wild' (Interview 3). Some tourists felt that young gorillas 'constantly put up shows', and 'pose for nice shots' (Group Interview 5, August 2018). Some individual gorillas seem to tolerate the presence of people more than others. For example, while 'friendly Thursday', of the Kyaguliro group 'seems to enjoy the presence of people', Kamuga usually keeps out of view from tourists, researchers and trackers (Walk-along interview with tracker, 2018).

Besides, these encounters and behaviours of the gorillas are not always static. There were cases where gorillas that did not seem to be bothered by the presence of people suddenly turned aggressive before the end of the viewing time. To illustrate such a case, we provide an extract of the first author's experience:

Suddenly the silverback walked toward the spot where I was standing. At a distance of about two metres, he started charging – standing upright and thumping his chest with his eyes wide open. Fear engulfed me. My feet trembled. One of the rangers grabbed my shoulders and reminded me that if I would run, I would be in trouble. The silverback repeated the charge once more. Another ranger figured out that he wanted his right of way to the tree behind me because that was his tree. The ranger had always observed him taking a few minutes away from the family in that particular tree. The ranger holding my shoulders carefully moved me aside. It was tense. As soon as I had been moved away, the silverback climbed the tree and the tracking proceeded normally.

(Field notes, 2017)

Here, our ANT-inspired understanding is that the gorilla imposed his particular understanding of the material environment onto the social encounter.

Additionally, some gorillas either 'refuse or partially participate in tourism encounters' (Interview, UWA ranger 2, 2018). Rangers and field staff explained that gorillas express their discomfort by charging more than twice. The group of tourists that experienced such

encounters was forced to end gorilla viewing before the standard one hour (Group Interview 1 with tourists, 2018). In addition, some gorillas 'go back to the wild and refrain from encounters with tourists for more than three months' (Interview, UWA tracker 2, August 2017).

Furthermore, there were times that both gorillas and tourists got closer than the prescribed 7 m. Tourists move closer to take pictures but some close encounters are initiated by gorillas. The following excerpt from the first author's field notes describes such an encounter:

One of the blackbacks – an adult male whose back is not yet greyed – walked towards me and touched my hand. He was neither scary nor confrontational, he seemed like he was teasing me or checking my jacket. (Field notes, 2017)

The first author's experience described above is not an isolated occurrence. Interviews with tracking teams and a review of tourist blogs and scientific articles (Sandbrook and Semple, 2006) revealed that gorilla-initiated encounters are more common than imagined. Relatedly, contrary to the expectations of the gorilla tourism arrangement, some gorillas visit tourist camps, thereby permitting unpaid views (Interview lodge staff, December, 2018).

When gorillas 'hinder', 'disrupt', 'permit' or 'render possible' (Latour, 2005) gorilla tracking activities, they can no longer be considered to be only passive objects of the tourist gaze (Laudati, 2010a; Urry, 2002). They actively take part in the creation of gorilla tourism experiences. Of course, such interactions might produce realities such as commodification, but our core argument is that gorillas play a role in enacting/producing these realities. After all, by now, the 'majority of the current habituated gorilla families have seen humans as part of their neonatal environment' (Interview behavioural ecologist 1, 2017).

3.4.6. Gorillas–gorillas

Since the start of gorilla habituation in Bwindi, there have generally been two categories of gorillas: habituated and unhabituated. However, when observing the dynamics in the daily lives of gorillas, this strict distinction is no longer realistic. The people involved in the habituation process expect the habituated gorillas to continue 'participating' in the established relations. They expect to find them to continue feeding within the mapped ranges and remain trackable. However, the field staff indicated that this is not always the case. Some

habituated gorillas split off to form other habituated families. Others separate from their families, go back to the wild, and return after some time, or are never seen again (Interview, UWA research & monitoring staff, 2018).

The dynamics of emigration and social organisation of gorillas are complex, but mainly arise from competition for alpha male status, and replacements in case of dead silverbacks (Harcourt and Stewart, 2007; Kabano et al., 2014; Robbins and Robbins, 2018). Male gorillas split from the main family and may lure a few females to move with them to start a new family. Sometimes, a male gorilla leaves on his own and remains solitary until he is able to attract females from both habituated and unhabituated groups (Interview UWA tracker 1, 2017; Interview UWA research & monitoring staff 2, 2018).

The fact that both habituated and unhabituated gorillas leave to join other groups or start new families composed of formerly habituated and unhabituated individuals, implies that habituation is a more complex affair than just a matter of scientists trying to make gorillas get used to human presence. It means that gorillas too are capable of self-habituation or de-habituation: in the case where a habituated gorilla emigrates to and integrates in an unhabituated group. Or, when an unhabituated gorilla immigrates into a habituated family and is able to live among them and be tracked, we argue, such a gorilla has been habituated by the family.

3.5. The role of animal agency in conservation and tourism at Bwindi

As noted before, an ANT perspective on non-human animal agency focuses on the various ways in which 'non-human animals enter into relations (. . .) in which humans and non-humans change together' (Michael, 2016: 143). From this perspective, the changes noticeable at Bwindi are not entirely attributed to gorillas. Rather, the changes are attributed to the process of building these relations around the gorillas. In this perspective, all elements of reality, such as gorillas themselves, agency, conservation, tourism and commodification, are produced in relation-building processes (Law, 2009). To explain this, we first review how it is that the mountain gorilla occupies a central place not only at Bwindi, but at a global level.

At Bwindi, the relations that we have described in the previous section are not exhaustive. There could be many more relations, and thus other realities. However, our main argument is that the presence of gorillas and their foraging patterns have made a palpable

difference in the complex processes that produce realities through particular spatial configurations and management practices of Bwindi. We discern this difference in the various arguments for converting Bwindi forest into a National Park and gorilla ecotourism practices. Both Harcourt (1981) and Butynski (1984b) explain some of the ecological benefits of conserving Bwindi forest as an area for water catchment, soil conservation and research on biodiversity. However, they explicitly conclude that the recommendations for turning Bwindi into a National Park were meant solely for protecting mountain gorillas.

Furthermore, unlike other National Parks in Uganda, where tourist numbers are not limited, entrance to the gorilla parks is restricted to a maximum of eight visitors per gorilla family (Interview, ranger 1, 2017). This is because, 'gorillas get stressed when exposed to large tourist groups such as those that visit other parks' (Interview with ecologists 1 & 2, 2018). As a result of these (in)capabilities (not withstanding crowds, not surviving in captivity) of gorillas in relation to tourism and conservation activities, the survival of mountain gorillas features in most interventions, policies and controversial debates around Bwindi.

The focus on gorillas in most of the plans, practices and reports on Bwindi management, despite the presence of other fauna such as elephants, duikers, chimpanzees and monkeys (Hickey et al., 2019), is striking. We acknowledge that these studies are relational effects: they are an outcome of processes that bring together particular interests, funds and methods. Such processes further produce power relations, exclusions and othering. However, it is difficult to imagine similar outcomes if the gorillas were extinct or did not exist at all. It is upon such convictions that we understand animal agency to extend to the spatial configuration of Bwindi.

In the first place, although mountain gorillas are believed to have existed alongside humans since time immemorial, they were not scientifically described until Matschie did so in 1903 (Taylor and Goldsmith, 2002). This implies that what we refer to as mountain gorilla is a product of relations and a network of colonialists, local communities, hunters and their equipment and scientific practices of nomenclature and taxonomy. One of the profound reality effects of these studies and associated networks was the production of the mountain gorilla that has become popular today (Van der Duim et al., 2014). One that is considered as the largest non-human primate (McManus et al., 2015), that shares 97.7% of their genes with

humans (Adams, 2013). They can only be found in Bwindi and the forest of the Virunga volcanoes, and they cannot survive in captivity (Cincinnati, 2015). These attributes differentiated the gorilla from other animals in Bwindi, but most importantly, played a role in the formulation of policies and conservation interventions at Bwindi. The interventions for in-situ conservation of the mountain gorillas at Bwindi included upgrading the Bwindi forest from a reserve to a National Park (Butynski, 1984; Pitman, 1935), and later introducing gorilla tourism as a conservation tool.

These interventions meant a variety of costs and benefits for local communities around Bwindi (Tumusiime and Sjaastad, 2014). These costs and benefits are different for each of the community groups around Bwindi. Overall, conservation interventions have been the cause of conflicts (Baker et al., 2012) and evictions, as well as disenfranchisement of local communities (Kidd, 2014; Mukasa, 2014). Whereas the Bakiga, Bakimbiri, Bahutu, Batutsi and Bafumbira communities lived off the Bwindi forest, the Batwa are the most affected as they were evicted from their homes inside the forest. Some scholars argue that this eviction has forced the Batwa to live on the margins of the forest, and certainly, 'margins of life' (Tumushabe and Musiime, 2006).

Another contribution of gorillas to the conservation and tourism practices in Bwindi is illustrated by the Nkuringo case. In a complicated and contested process of buying out land from communities, gorillas certainly played an important role. One of the UWA Staff explained that the gorillas seem to have 'colonised different locations around the forest, gradually expanding the forest boundaries'. The Nkuringo gorilla family 'spend almost 80 per cent of their time on community land' (UWA staff, Nkuringo, 2018). 'Consequently, UWA together with their conservation partners, negotiated with residents to give up 1037.8 acres of land for gorillas' (Interview, UWA research & monitoring staff 1, 2017). This was in exchange for a high-end lodge in partnership with a private entrepreneur (Interview with community leader 2, 2017). 'This land was turned into a buffer zone' (Interview, community leader, August 2017).

This arrangement was riddled with power relations, and interests from national and international conservation organisations, politicians, residents and entrepreneurs. The contested and controversial nature of this arrangement has been studied by Laudati (2010b) and Ahebwa (2012). However, it is difficult to imagine these processes without these gorillas

contributing to the expansion of their territory. The Nkuringo group of gorillas frequently ate plants from people's gardens, the gorilla permits attracted the private investor, and the idea that 'gorillas don't eat tea' (Community leader, 2017; UWA staff, 2017) all overlapped with the 'Uganda government efforts to increase tea production' (Interview with official, Ministry of Finance Planning and Economic Development, 2017). Controversies aside, the replacement of subsistence crops with tea plantations has made visible changes to the Bwindi landscape – and the foraging patterns of the gorillas are part of the processes that gave rise to these changes.

Related, gorilla tourism – another non-traditional land use – was introduced and speeded up at Bwindi. Interviews with entrepreneurs, UWA staff and planners at the national level highlighted the importance of gorilla-based tourism for Uganda's economy. The distribution and management of this revenue is contested and poses challenges (Ahebwa et al., 2012; Sandbrook, 2010; Sandbrook and Adams, 2012). Nonetheless, interviews with community leaders and UWA staff revealed that entrepreneurs and community leaders continue to demand for more 'tourism sectors' in their villages. To meet these wishes, gorilla viewing spots (sectors) have increased from one in 1998 to four in 2019. And with the introduction of more tourism sectors, administrative units, institutional arrangements and practices to involve 'selected' communities in gorilla conservation activities were put in place.

In all the examples explained so far, it is important to note that, from an ANT perspective, gorillas do not act alone in producing these realities. They are entangled in complex processes that change the gorillas themselves, the different groups of people involved, the landscape, the gorilla tourism economy, conservation policies and practices. In some cases, the gorillas have made gorilla tracking possible, for example by returning the gaze and keeping calm for the one-hour tracking period. In other cases, they have forbidden or worked against the tourism economy by charging or disappearing into the forests. They also sometimes undercut tourism practices by visiting tourist lodges giving away their encounter value 'for free'. It is within such entanglements with scientific descriptions, policies, landscape, vegetation, people and gorillas that agency is produced and distributed.

3.6. Conclusion

In this article, we used relational agency as an analytical lens to reconstruct gorilla habituation in order to illustrate possible ways of taking animals more seriously in the context of conservation, tourism and development. First, we argue that habituation is a multisided and complex interaction that goes beyond one-way domination, taming or domestication (cf. Swanson et al., 2018) or control (Rinfret, 2009). Moreover, drawing on pre-habitation relations between gorillas and local communities, there is a possibility that habituation can also occur 'naturally' or less as an outcome of deliberate policy. Prior to the scientific habituation of gorillas, gorillas and residents moved about in the forest, usually 'common-sensing' (Boonman-Berson et al., 2016) each other through various sensory cues, while on the 'most part avoiding contact and conflict' (Interview, community elder, 2017). This observation was also made by Fossey (1972); however, Pitman (1935) noted instances where gorillas seemed to be used to the presence of the Batwa and, later, scientists and gold prospectors as early as in the 1930s. This argument is further supported by the observation that unhabituated gorillas that join habituated gorilla groups do not undergo the habituation process, yet they still become 'viewable' in the gorilla tourism practice. Therefore, we argue that habituation is a complicated, dynamic process in which gorillas come to influence, and be influenced by conservation, tourism and development practices.

Related to the above point is that gorillas contribute to their own conservation, and the tourism economy that commodifies them. By foraging at different spots of the forest than the unhabituated gorillas do, the habituated gorillas have subtly zoned out the forest into habitats for habituated and unhabituated families. Seiler et al. (2017) also note the spatial partitioning of the Bwindi forest by gorillas and attribute this to social factors such as competition for mates. These findings are interesting from an ANT point of view because they indicate that besides conservation efforts, gorillas too play a role in ensuring that they survive under the conditions of the tourism economy and the resulting geographies.

Although the idea of relational agency and multiplicity is not new (Law, 2009; Mol, 2002), we argue that understanding the multiple relations afforded by gorillas, point to the need for constant adaptation of conservation interventions. We argue that it is no longer sufficient to practice conservation and tourism based only on conventional categorisations into wild, liminal and domesticated animals (Donaldson and Kymlicka, 2011) or in this case,

habituated and unhabituated gorillas. Crosscutting political categorisations of these basic types of relations, arguably gorillas in Bwindi can be all three, where some visit a lodge, others intermittently gaze back at tourists, and again others never let them-selves be seen. As long as there is an opt-out of habituation and tourist encounters, arguably the range of possible relations for these gorillas can enhance their agency by allowing them to respond to their experiences and actively perform the particular gorilla subjectivity that suits their interests as they perceive these. Under these conditions, habituation is not fully imposed on the gorillas, but offers an optional way of being gorilla.

Equally important is that this view of animal agency enables primatologists, ecologists and conservationists at Bwindi to think about more ways of managing with the gorillas other than the increasingly futile – yet costly – attempts, rules and strategies to restrict or control the interactions of gorillas and humans. As such, political, scientific and policy practices can best be adapted to the changing and multiple animal agencies that emerge, to achieve the best results for both the animal and the non-animal actors. This also has implications for scientific understanding of gorillas: not only as the ‘*Gorilla beringei beringei*’ that can be found to express novel behaviour, but acknowledging the entangled settings in which knowledge of gorillas – of both habituated and unhabituated gorillas – is produced (Despret, 2016). This implies we could approach gorillas not on the model of a single essential ‘gorilla-ness’, which defines their character, abilities, motives and preferences exclusively and comprehensively by their species. And not just to think of gorillas in binary habituated versus non-habituated terms, but more like the inherently multiple self-hybridising coywolves: reflecting their ‘irreducible indeterminacy’ (Rutherford, 2018).

Does giving up on an ideal of pure untainted wild gorillas in the name of gorilla multiple imply that there is no way to critique certain forms of management and approaches to habituation? Or can there still be good reasons to retain enough non-habituated groups and acknowledge zones in the forest that are off-limits to tourists or other interventions: specifically, to ensure this dynamic range of options for gorillas to become more or less habituated? Building on the relational understanding of agency, this geography of granting options to wildlife should not be merely seen as simply allowing for gorillas to ‘consent’ to being subjected to habituation by not opting out of this situation. That would gloss over the intricate relations between gorillas themselves, and between gorillas and humans, that shape

their lives in Bwindi. The aim is not to somehow resolve the ethical concerns of this situation, but to live with the ambivalences of the ongoing circulation of care, in search of ways to ‘enact nonexploitative forms of togetherness (that) cannot be imagined once and for all’ (Puig de la Bellacasa, 2017: 24). And, we would add, the imagining and judging of which is not an exclusively human prerogative.

3.7. Implications for conservation and tourism development

It is important to note that the gorilla habituation case discussed in this paper is a particular one – or what ANT-scholars term as an exemplar (Law, 2009). To understand the nature of habituation and its effects on gorillas and their relations to various others, it can be contrasted with the relations emerging in forms of intensive, or ‘extreme’, conservation of other species in various places across the globe. For instance, the extreme measures taken to conserve whooping cranes through captive breeding, as described by Van Dooren (2014), reveals the extent to which conservation efforts that seek to reproduce individuals of a species can have far-reaching effects on these animals. According to Van Dooren (2014), imprinting produces

a relationship with humans at the expense of a whole set of other ways of being, often severing the possibility for a bird’s relating with others of its own species, and so profoundly altering its chances for social and procreative relations. (Van Dooren, 2014: 103)

Whereas the lives of whooping cranes seem wholly orchestrated, this arguably contrasts with Bwindi mountain gorillas, who more actively switch between habituation and non-habituation, rather than inflexibly executing imprinted action plans.

Gorilla habituation discussions are often premised on the assumption that habituation is an irreversible process entirely controlled or executed by humans guided by sound scientific field guidelines (Williamson and Feistner, 2003). We have demonstrated that prior to the arrival of scientists, gorillas seemed to have been habituated by local communities. Moreover, gorillas are, to some extent, capable of self-habituation and de-habituation. The observations at Bwindi, and elsewhere (see Amir, 2019) challenge Knight’s (2009) argument that reverse habituation means humans have to withdraw from the interaction. Gorillas too can withdraw from these interactions. Similarly, when establishing a norm for the distance people should

keep when viewing gorillas, scientists did not imagine that gorillas too would initiate closer contacts (Sandbrook and Semple, 2006); and when setting the limit of eight people per day, they did not envisage that some gorillas would come to tourist lodges regardless of the number of visitors therein. This further implies that land-use-based interventions such as clearing herbaceous plants and planting buffer crops to keep gorillas inside and restrict their movements (Seiler and Robbins, 2016) are bound to be unsuccessful as gorillas may soon adapt to these interventions.

Related, the continued growth of the gorilla population (Robbins et al., 2011) amidst increased tourism sectors at Bwindi and the entire Virunga Massif, calls for a rethinking of the argument that habituation and tourism may lead to reduced reproductive success (Butynski and Kalina, 1998; Muyambi, 2006). Furthermore, opponents of habituation emphasise that it increases the risk of disease transmission (Woodford et al., 2002). Nevertheless, in these debates, it is important to consider that gorilla mortality is not only human-induced. Gorilla deaths also occur as a result of injuries sustained from gorilla–gorilla fights, and tree falls. Moreover, habituated gorillas can significantly contribute to their own conservation/survival, as observed in cases where gorillas directed rangers to the snares of poachers or dismantled these themselves (Than, 2012). More so, gorillas have been shown to allow a variety of practices, as in the case of the captive western lowland gorilla Koko who famously communicated with her human keepers using a modified version of American Sign Language (Morin, 2015). Such observations call for openness to the various relations that gorillas are capable of. By considering what gorillas can do other than getting used to human presence, conservationists can come up with interventions that pay more attention to how gorillas contribute to conservation and tourism practices.

Furthermore, the arguments about commodification for tourism (Laudati, 2010a), and control in conservation (Rinfret, 2009), disregard the fact that the gorilla tourism economy only survives if a significant number of gorillas do not just endure but also return the tourist gaze – allowing these visitors to participate in the at first scientific and now touristic tradition of encountering gorillas (Haraway, 2013). Besides, although the gorillas have been made viewable through habituation (Fossey, 1974; Knight, 2009), they still need to retain enough of their ‘wildness’ to stay in the forest and not come to lodges and give away their encounter value for free, as then the gorilla economy would no longer function. Based on this analysis,

we reiterate that it is insufficient to conclude that gorilla tourism at Bwindi is entirely human-controlled because it exists in and through intricate relations between animal and non-animal actors. In these relations, both the gorillas and other actors adapt and re-adapt incessantly.

Our relational analysis of the practice of habituation further indicates that habituation is a mutual process where both the gorillas and humans get habituated to each other's presence, resulting in novel forms of interaction, both in direct encounters and through reconfiguring the landscape. In sum, by analysing the multiple relations that gorillas engage in and how they spatially play out, we situated animal agency in gorillas' interactions with other actors, and their ability to influence habituation itself, involving gorilla tourism, conservation interventions and the ever-changing Bwindi landscape. Such a view of gorillas and animal agency in general, enables a better understanding of animals as conservation actors (see also Jepson, Barua and Buckingham, 2011) and challenges the common assumption that only humans control the shaping of conservation, tourism and the associated landscapes.

Chapter 4

Material pacification: how a conflict over paving Uganda's tourism road got accidentally resolved



This chapter is submitted to Tourism Planning and Development as:

Ampumuza, C., Duineveld, M. and Van der Duim, V.R. (2021). Material pacification: how a conflict over paving Uganda's tourism road got accidentally resolved.

Abstract

Starting from an Actor-network Theory [ANT] inspired relational perspective on object formation and material agency, this article analyses the controversies about plans to pave the Ruhija road through Bwindi Impenetrable National Park (Uganda). Based on interviews, ethnographic observations, and analysis of relevant documents, we analyse the multiple ways in which the Ruhija road is enacted and objectified in conservation, tourism and planning practices. We further show how these different objectifications of the Ruhija road not only led to enduring conflicts, but also contributed to postponing the plans to pave the road. We argue that improving traction of the road without paving it pacified the conflicts. The partial solidification of some of the muddiest parts of the road unintentionally matched with the different 'road realities' and related interests of the actors involved. Our analysis shows how the vibrancy of materiality is always relational, and can only be understood when the context in which materiality is objectified is taken into account.

Key words: *material agency, planning and policy, Ruhija road, Bwindi, material pacification*

4.1. Introduction

Many papers in tourism, planning and policy studies analyse roads in terms of enabling and limiting mobility of tourists, connectivity and access to places, and development of tourist destinations (Jovanović and Ivana, 2016; Khadaroo and Seetanah, 2007; Cárdenas-García and Sánchez-Rivero, 2015; Calderwood and Soshkin, 2019). Other studies focus on sustainability in tourism infrastructure planning (Patwal, 2013; Boers and Cottrell, 2007). Within this literature, emphasis is often placed on developing the most appropriate planning models (Getz, 1986) or increasing community participation in tourism planning and policy-making processes (Bello et al., 2016; Simmons, 1994; Murphy, 2012). Kanwal et al. (2020) further demonstrate how constructing roads motivates communities to support tourism development projects. Others focus on the relation between tourism infrastructures and how competitive tourist destinations are (Jovanović and Ivana, 2016; Reisinger et al., 2019).

With exceptions such as Dalakoglou (2017), many of the papers we reviewed, roads and other transport infrastructure are analysed either as fixed objects that facilitate travel or as objects to be fixed through proper planning (Donázar et al., 2018; Gardner, 2017; Beeco et al., 2013; Boers and Cottrell, 2007). In this paper we diverge from these approaches by analysing the road as an object that is enacted in multiple practices (Mol, 2002). To do so, we draw from discussions on material agency that have emerged in the last 15 years in various disciplines like archaeology (Meskell, 2008; Joyce, 2012), sociology (Pinch and Swedberg, 2008), political science (Coole and Frost, 2010; Bennett et al., 2010), organisation studies (Carlile et al., 2013), and extensively in studies on landscapes, spaces and places (Anderson and Wylie, 2009; Bennett, 2010; Barba Lata and Minca, 2018; Duineveld et al., 2017) and tourism studies.

In the latter, it has been argued that materiality such as cheese (Ren, 2011), cigars (Simoni, 2012), coral reefs (Middelveld et al., 2016), and volcanic ash are central to the enactment of tourist destinations. Yet that is not all. Materialities can also disrupt tourist activities and schedules as illustrated by Van der Duim, Ren and Jóhannesson (2013), whereby ash particles from a volcanic eruption in Iceland resulted into a temporary halt of air travel in most parts of Europe. This article contributes to this body of literature that aims to materialise the analysis of tourism planning and policy processes. We will analyse the role material agency played in both the shaping and the expiration of the controversy around the paving of the

Ruhija road in Bwindi (Uganda). We aim to shed a different light on the seemingly simple question whether this road should be paved or not.

4.2. To pave or not pave the impenetrable?

The Ruhija road runs from east to west through Bwindi Impenetrable National Park (Bwindi), a forest of 321 square kilometres, located in south-western Uganda bordering the Democratic Republic of Congo to the west. Over the years the park has become renowned for mountain gorilla conservation and gorilla tourism (van der Duim et al., 2014). The Ruhija road was opened up in 1957, before Bwindi forest was declared a national park, following demands for road access from local communities, and to facilitate the gold and timber trade (Ogaram et al., 1995).

Over the years the Ruhija road featured prominently in (social) media, policy reports and public discussions. The road has always received most media attention during the rainy season when it becomes slippery and vehicles get stuck in potholes, negatively affecting communities, tourism and the local economy. In the dry season, the road is more stable and, depending on the intensity of the sun and the time of the day, it can be rather dusty, causing all kinds of dust-related problems. As a result, for years many residents, tourism entrepreneurs and politicians lobbied and protested in favour of paving this road. Around 2011 governmental plans were made to do so. However, proposals and plans to pave this road were met with severe criticism, mainly from (internationally funded) conservationists. Many were against paving this road and suggested to locate it outside of Bwindi (Behm-Masozera, 2014; Barr et al., 2015).

The protests were not unsuccessful and until this day the Ruhija road remains unpaved. Yet, to our surprise by the end of 2018 media attention covering the road controversy dwindled after parts of the road were solidified but not paved. This silencing of the debate sparked our attention. Did we just witness a mediating role of materiality in solving social problems? In this paper we will try to deepen our understanding of the road controversies, the demise thereof and the role of material agency in shaping tourism planning processes.

To do so, we combine insights from participant observation, document study and unstructured interviews (45 in total) with key stakeholders such as residents, local leaders,

road authority officials, tourism officials and conservationists. Twelve of those interviews were held in small groups ranging from 4 to 8 people during various mobile research events such as drive- or walk-along sessions. These 'data' were supplemented with participant observations during meetings, conferences, workshops, social gatherings, drive- and walk-along sessions, conducted by the first author in 2017, 2018 and 2019. In addition, we analysed 104 published and unpublished documents such as local newspapers, tourist blogs, posts on social media (TripAdvisor, Facebook and in WhatsApp groups), government planning documents, policies and policy briefs. Before returning to our analysis of how fixing a road could resolve a controversy about paving it, we will introduce the theoretical framework that helped us to analyse and deepen our understanding of the role of objects and material agency in social controversies.

4.3. Theoretical framework

Actor-network Theory (ANT) has become widely known, especially within science and technology studies, for its focus on the role of non-humans in the making of the social (Michael, 2016). ANT grants that non-humans are actors too and should be taken into account in our attempts to understand 'society'. Both humans and non-humans are granted agency: they act but they never act alone (Law and Mol 2008; Mol, 2010). They cannot be separated from the networks in which they are constituted (Latour, 2005).

Every element in the networks that make up the social is constituted in relation to other elements: humans and non-humans. Since the same elements (bodies, materiality) can become part of different networks, within ANT reality is not seen as singular but multiple (Mol, 2002). Departing from these more general ANT insights we will now deepen our understanding of material agency and object formation, which will be key to our analysis.

4.3.1. Material agency

Different schools of thought have conceptualised material agency. For example, Bennett (2004, 2010) emphasises that materials are not static entities, passively waiting for human intervention, but are inherently active, and capable of self-reorganisation. This view of material agency is shared by theorists such as Cetina et al. (2005: 12) who argues that 'non-humans do not just mediate, but themselves propagate practices: practices, (...) comprise human and non-human activities'. In the words of Strengers and Maller (2012: 756): 'material objects, including technologies, infrastructures and artefacts become active participants in

social practice’. Michael (2016), for example, draws on several ANT exemplar cases to demonstrate that it is the particular and contextual relation between humans and non-humans that produce, accelerate, disrupt or even hinder certain scientific practices such as experiments.

Materiality is indeed active and vibrant, but it never acts in a void, it is a relational effect. Matter acts and evolves, but only in relation to other things, humans and non-humans. Material agency can only be understood if we also analyse ‘the context’ in which its vibrancy is enacted and enacts. As Bergthaller (2014: 6) argues, ‘agency (...) is emergent and distributed, that is, it is not the property of concrete, isolable entities, but manifests itself only as distributed throughout the networks in which these entities are embedded’. In this view, material agency is a networking effect (Latour, 2005). Thus, material agency can therefore never be predicted a priori, or seen as a quality of a particular object.

4.3.2. *Object lessons*

A disease or piece of cheese is not a singular, stable object but a particular enactment in a particular time and place. So, when we analyse the multiplicity of the Ruhija road or any other object, we do not speak of ‘different perspectives on a single object but the enactment of different objects in the different sets of relations and contexts of practice’ (Law and Singleton, 2005: 342). Therefore, Law and Singleton (2005: 337) argue: ‘thus the first take-home lesson from ANT and post-ANT studies is that objects often display—may be understood as being constituted in—a double immutability. They probably have a more or less stable shape in physical space—though the definition of that stable physical shape is likely to depend on relational and interactive work of one kind or another (and it may also be that ‘abstract objects’ do not occupy Euclidean space).

So, while within certain networks, certain objects might be seen as stable, immutable, clearly delineated, this is more the effect of rendering an object real and essentialising it within a certain network (Fuchs, 2009). In other words: while some objects might be thought of as singular and might look like the same thing in different contexts, they are by definition different if the web of relations in which they are enacted are different. Although some objects can be assumed to have more material stability than others, the ways objects hold themselves together in different contexts cannot be assumed a-priori, just like their agency, it is a relational effect.

4.3.3. *Our focus*

To understand the contested nature of the Ruhija road we deepen our insight into the agency of this object. We do so by analysing how the Ruhija road is enacted as different, overlapping and conflicting objects by a range of actors from the tourism sector, conservation, members of local communities, road engineering and development planning. We start with the assumption that roads are the result of a particular enactment of materiality within a particular network into an object: a road. Materiality is always on the move and any discursive fixation renders something discursively static that in fact is dynamic, vibrant and multiple. How materiality will relate to and will affect and be affected by a person, a community, or policies, can only be understood by observing the actual relations that are established between humans and non-humans.

4.4. **A contested road**

The unpaved Ruhija road is used and debated by locals, tourists, tourism organisations, conservationists, policymakers and politicians. We will now make explicit the different ways the road becomes real and object of dispute for different state and non-state actors. We will start by describing the relations and related experiences different users have with and on the road. These relations and experiences not only illustrate the many ways in which the materiality of the road affects everyday life and practices, it also makes clear why many have argued in favour of paving the road. Then we will move to the realm of politics and policies, and explain the most prominent yet unsuccessful political and policy attempts to pave the road. Finally, we will explain how conservationists argued against and undermined the attempts to pave the road.

4.4.1. *Living with the Ruhija road, stories of discontent*

During the rainy season, when the Ruhija road gets in contact with the tyres of the vehicles, often produces a film of water and gets slippery. In the dry season, the same road disintegrates into dust particles when the wind blows over it or when a vehicle passes. Many of the experiences of users of the road are related to these seasonal stages.

the drive takes at least 10 hours along often shocking dirt roads, while the dust your vehicle throws up chokes the children on the verges (Steve, 2014).

The road is described by tourists as a 'rough road' providing an 'African massage' (TripAdvisor, 2013) experienced as:

Sharp jolt to the left, with a less-than-graceful smack into the overland truck window. Then a body-roll to the right as the torso tries to right itself in some beginner belly dancing move. It is more often than not accompanied by a vertical push-up on the seat in front before the back nestles into the seat it originally rested on (Wilson, 2015; see also Coyle, 2002).

The label 'bone rattling road' is also used to refer to the roughness of commuting on the road by car (Sher, 2006; Airkenya, 2013). As one tourist puts it: 'the spine was (...) thrown out of whack and realigned a number of times' (Crabbe, 2011). One of the staff from the Ministry of Tourism Wildlife and Antiquities [MTWA] explained that: 'a guest does not pay more than 2000 dollars for a gorilla viewing trip to break their backs on that bumpy road; they need a comfortable trip' (Interview with MTWA staff, 2017). The experiences with the Ruhija road and other roads in Uganda made a tourist advise other potential travellers that they should fly rather than drive to Bwindi because of the drive 'along often shocking dirt roads, while the dust your vehicle throws up chokes the children' (TripAdvisor, 2014).

Drivers of tourist vehicles often have to prepare their trips with the road conditions in mind. For example, when it rains, drivers depart from the nearest town of Kabale at 5am, and carry shovels along in case they have to deal with the muddy road. Sometimes they have to reduce speed to almost 10 km/h to go through the mud. If they get stuck, they have to mobilise the community, shovel out the mud, collect tree branches and stones to improve traction before they can move. In the dry season, drivers drive with windows closed to avoid irritation from dust. As a result, they pack plenty of water to quench the thirst produced by the heat from closed windows (interview with tour guide 3, 2018).

Many communities neighbouring the Bwindi forest, use the Ruhija road for livelihood activities such as commuting to health centres, farms and markets. They also trade there by setting up roadside stalls and shops, and some have built their homes along the road. Tea farmers told us that whenever the road is slippery and their trucks get stuck on the road, they sometimes have to walk long distances (about 11 kilometres) to the factory, carrying the large tea sacks on their heads. If they are lucky, they can walk to the less slippery sections of the road, where they can then load the tea onto trucks again (group interview with tea farmers, August, 2018).

During the dry months, dust from the road constantly finds its way into residents' houses, compounds, gardens and other spaces. As a result, they have to continuously clean their houses and wash their clothes. Also, people periodically pour water on the surface of the road to contain the dust, though this only helps for a few minutes. During both seasons, many residents wake up early to make up for the extra time needed to drive slowly on a bumpy or slippery road.

From the interviews and meetings with residents, it became clear the current Ruhija road is risky in two ways. Firstly, vehicles transporting patients or women in labour cannot always get to the hospital fast enough, leading to extra complications or even death in some occasions. Secondly, sometimes the drivers fail to negotiate the sharp bends of the winding road while simultaneously dodging the protruding rocks or potholes on the road surface. As a result, the vehicles sometimes veer off course, over turn or cause an accident.

The users we spoke to were very unsatisfied with the Ruhija road, and none of them spoke fondly of it. Some residents even argued that 'you cannot call the Ruhija road a road, its rather an *ekikorogyero*', which literally means a track for livestock. For years, many of these people expressed their wish for paving the road by means of protest or lobbied for it, and the Ruhija road was a constant point of discussion between politicians and their electorate. These demands were further strengthened by local and international media reports about residents' dissatisfaction with the state of the road (e.g. Red pepper, 2016; Tabaruka, 2013; Mafabi, 2017).

4.4.2. Attempts to pave the unpaved

Until 2011 the Ruhija road was hardly mentioned in official policy documents (cf. 1993 Tourism Master Plan for Uganda with the revised 2014-2024 tourism development master plan for Uganda and the Uganda National Development Plan II in which the Ikumba-Buhoma road and tourist roads are specifically mentioned). That year comprehensive tourism statistics and surveys were published to emphasise the economic importance of tourism to Uganda's economy (Weiss and Masserli, 2012). Six priority roads for tourism were identified, including the road to Bwindi (KTCP, 2013; GSTA, 2011). The assessment report indicated that the poor road infrastructure to key tourist sites was a major setback to the country's tourism sector.

They specifically cited the World Economic Forum's 2011 TCI ranking of Uganda at 119 (out of 139 countries) in quality of roads (Weiss and Masserli, 2012: 16) to justify the need for paving these roads. Both the USAID-STAR paper and the tourism sector assessment report argued that paving the tourist roads would promote tourism development and competitiveness by improving accessibility to the mountain gorillas (Weiss and Masserli, 2012; GSTA, 2011). With the help of the United States Agency for International Development (USAID) and the Uganda Ministry of Finance, the paving of tourist roads became a priority in order to improve infrastructure for sustainable tourism development in the Albertine region. Ruhija was of the roads earmarked to spur sustainable tourism development (GSTA, 2011) and the pavement of this road was included for funding in the 2011/2012 budget of the Ugandan Ministry of Finance and Economic Development.

Between 2012 and 2015, all key tourism plans and policy documents included roads as a key issue and many of the perceived problems related to the sorry state of the road were acknowledged. For example, UWA's 2013 strategic plan stated that 'roads and tourist infrastructure (...) are inadequate, in a sorry state (...) hence giving the wrong institutional image and demoralising staff' (UWA, 2013: 19). The Bwindi General Management Plan (GMP) indicated that, 'all roads connecting Bwindi (...) are most of the time in a bad state (...) tourist vehicles often get stuck causing delays in their time-bound itineraries especially gorilla tracking' (UWA, 2014: 74).

Also Uganda's revised tourism policy 2015, listed 'poor road access to and between key tourists sites (...) ' (MTWA, 2015: 13) as a key weakness of the tourism sector and aimed at 'linking all key tourism sites with paved roads and all-weather marram roads where appropriate' (MTWA, 2015: 18). In addition, the policy was striving to integrate tourism development planning into physical infrastructure planning and development at central and local government levels (section. 7.2. (10). This influence was also evident in the revised National Development Plan II (NDPII) and the Vision 2040 (Chapter 4, section 90), that emphasised improving tourism support infrastructure to efficiently facilitate the tourism industry. However, despite all these plans and debates, the Ruhija road has neither been paved through the forest nor redirected outside the forest.

4.4.3. *Conservationists resisting and undermining paving the Ruhija road*

Conservationists also frequently use the Ruhija road, as they commute to their offices, field stations to monitor gorillas and the forest, to conduct experiments, and collect samples, as well as to guide visitors. Although they use the road and are also subject to the poor road conditions, most of the conservationists are against paving the road. For them, one of the biologists explained, the *Ruhija* road is ‘living matter that is constituted by microbes, mineral matter, water, and air’. Other conservationists added that the *Ruhija* road cannot be separated (by paving it) from the rest of the forest because it is part of the same ecosystem and plays a part in the feeding habits of the mountain gorillas, elephants and other animals, such as earthworms, snails and numerous other invertebrates, either burrowing into it or walking on it.

No wonder the conservationists responded to the plans to pave the *Ruhija* road. The Uganda Wildlife Authority, responsible for conserving Uganda’s biodiversity, and partners commissioned a study questioning ‘the paving of the impenetrable’, and suggested alternative routing for the same reasons and came up with an option outside the park (UNESCO-UWA, 2014). In a policy brief Barr et al. (2014) justified the need to maintain the current material conditions of the road. The brief not only argued that paving the *Ruhija* road would have adverse effects – such as losing the image of impenetrableness and a higher gorilla mortality – but also suggested alternatives. In line with this, Uganda Wildlife Authority’s General Management Plan (GMP) of Bwindi proposed to ‘lobby with central government to divert and tarmac the *Ruhija*-Ndego road through the community land (...) instead of going through the park’ (Uganda Wildlife Authority, 2014a: 75). Such inclusions in policy reviews is not surprising given the efforts by various conservationists to influence policy and infrastructure development in support of biodiversity (Kim Bonine et al., 2016).

Moreover, the International Gorilla Conservation Programme (IGCP), who offer substantial financial support for the conservation of Bwindi, gave two conditions; withdraw their financial support if the road is paved; or mobilise more funds if the road is diverted outside the forest (Interview with IGCP staff, 2017). The lobby of the conservationists seemed to be successful as the reviewed 2014 Uganda Wildlife Policy explicitly stated that ‘any road passing through a game park would only be built after a scientific study has cleared its viability and impact on the park’ (Nsereko, 2014, p.1).

Important to note here is that the conservationists were not unanimously against paving the road. For example, some UWA staff (2018) indicated that the unpaved road disrupted conservation practice by causing delays for the field staff (Uganda Wildlife Authority, 2014a; Uganda Wildlife Authority, 1995). Conservationists at the MTWA argued that focusing only on gorillas and the forests excluded humans, thus narrowing the concept of conservation practice (Interviews with MTWA staff, 2017a; 2017b).

4.5. Conflicting realities

The above makes clear that the materiality that co-constitutes the Ruhija road is constantly present in the life of those that either make use of the road or communicate about it in policy documents, protests and media. ANT sensitised us not only to observe the agency of the Ruhija road, but also its multiplicity. Our observations of the ways in which people dealt with the Ruhija road and communicated about it revealed different roads: a tourist road, an invisible road, an ecological road, a 'non' road, a technical road and a political road and it is the difference between some these enactments that sparked the controversy. We named the three most import versions of the Ruhija road the tourist road, the non-road and the ecological road.

4.5.1. The tourist road

The first road we observed is the tourist road. This road is enacted in several tourism-related activities such as planning for tourism infrastructure development, budgeting processes, tour driving, and assessment surveys and reporting. In these activities, the Ruhija road is a road that enables transporting tourists to and from gorilla tracking in Bwindi, which is Uganda's most important source of tourism revenue. Partly this road is constituted by ongoing calculations of the economic value of the road based on revenue earned through tourism and the trade of goods such as tea (interview with UNRA staff, 2017; interview with local leader 1 & 2, 2018). Paving the tourist road is seen as an investment in Uganda's tourism industry, not paving it would imply prolonging the many problems tourism entrepreneurs and tourists experience in using the road in its current state.

4.5.2. The non-road

For some of the community members living along it, the Ruhija road did not deserve to be named a road. It is just 'a semblance of road, but actually, (...) it is ekikorogyero' (interview with community leader 1, 2017). 'Ekikorogyero' refers to the paths normally used

by cattle as they are herded to the fields. We name this second enactment of the Ruhija road: the non-road. Paving this version of the road would turn the ekikorogyero into an actual road. This road included the painful absence of not being a paved road. At stake here is not the country's economy, or tourism in general, but the lives and livelihoods of many communities who depend on the road in one way or another.

4.5.3. The ecological road

The ecological road is living matter, a risky landslide-inducing object, a park boundary and a safe road for mountain gorillas. The ecological road is a composite of 'microbes, mineral matter, water and air' (interview with a biologist, 2017). As the unpaved road limits the speed of motorists, this unpaved road is a safe road, because gorillas can easily cross the road as they go about their feeding (interview with UWA staff 2, 2018; interview with IGCP staff 1, 2017). In its current form, the road disrupts the ecology of the Bwindi forest by dissecting the park at the Kitahurira corridor and creating a great difference between the northern and southern blocks of the forest (Butynski, 1984a). Paving this road would separate it from the rest of the forest and affect the ecosystem in a negative way, since this road is part of the same ecosystem (interview with IGCP staff 1 & 2; 2017).

4.6. Realities in their own right and the limits of consensus

Following Mol's (2002) argument about the body multiple, the multiple realities of the Ruhija road are not only valid in their own right but also can neither be overlooked nor integrated. In such a scenario, any attempt at paving the road would have consequences for each of the road realities. While the tourist travel time and discomfort while traveling on the Ruhija road would reduce (NRM Media, 2016); and 'the quality of human life' on and next to the road would improve for many, the ecological road as it is now recognised by conservationists, would be destroyed. The other way around: doing nothing would 'conserve' the ecological road, but would prolong its disruptive agency for many.

4.7. Consensus materiality

In November 2015, a presidential candidate from the most popular opposition party was reported to have spent about 40 minutes helping to push a lorry that was stuck on the Ruhija road (Tumushabe and Rumanzi, 2015). This interaction with the road, in relation to his scheduled rally 'prompted him to 'immediately' refocus his message of the day to condemning the incumbent on poor road infrastructure' (Monitor team, 2015, p22). As a result, a

presidential directive was issued. A few days after media reports on the materiality of the Ruhija road, the Executive Director of the Uganda National Roads Authority (UNRA) received a directive from H.E. the President to visit Bwindi and the entire Kanungu area to assess the situation (Monitor team, 2015). Upon receiving this directive, UNRA staff visited the area with a team of other politicians from the national, district and local level representatives (interview with local leader 2, 2017). During this visit the UNRA director also got stuck in the mud.

We all got stuck at Mpungu for more than three hours together with the UNRA director and her Kampala team. It was getting dark with no hope of pulling through (...) (interview with political leader, 2017)

This prompted the UNRA to immediately dispatch equipment, and engineers to 'fix' the muddy section of the road by improving traction without paving (KTCP, 2018; Interview with Roads Authority staff 1, 2018). The road was fixed by first excavating out all the existing inferior material (chalky soil); then filling the excavation with a layer of rock fill [big stones]. And lastly, adding laterites, and compacting the surface to improve traction because rocks and laterites do not easily get slippery after heavy rains. (interview with UNRA field staff 2, 2018). After the intervention, vehicles no longer got stuck at the Mpungu spot on the Ruhija road. consequently, the frequency of articles in local print media and social media dropped from weekly reports around November and December 2015 to none in the same period of 2016.

Here the object lessons already learned by other ANT scholars can help us to understand why the conflict ended (at least for now). Fixing certain parts of the road made a difference in each of the three road realities. Although not paved, the tourist road as well as the non-road improved. For the conservationist the improvements still matched with their idea of an ecological road. While paving would harm the road, this way of fixing kept the ecological road intact. The material changes kept the road alive as a mutable mobile, comparable to the bush pump as described by Annemarie Mol:

This object is best understood as a mutable mobile. It is mutable in a variety of ways and for a variety of reasons. For instance, over time (and indeed geographical location) its physical shape changes, as do its component parts. This is because, when a pump breaks, villagers tend to replace its components with whatever happens to be at hand: bits of old tyres, convenient tree

branches,[...] 'The pump' keeps going, but the work that is keeping it going is largely unremarked, and (very important in the present context) that work has the effect of reconfiguring the relations that keep the pump going.

(Law and Singleton, 2005: 338)

In maintaining the adaptive capacity of the road's materiality and not solidifying it in an almost irreversible way (by paving it) tamed its agency in all networks, but saved its productive role in that of the conservationists.

4.8. Conclusion

In many studies, transport infrastructure is taken for granted as a fixed object that facilitates travel to and from particular regions, places or tourist destinations or is seen as a passive object of controversies, discussions, policies and plans (Donázar et al., 2018; Gardner, 2017; Beeco et al., 2013; Boers and Cottrell, 2007). In this article we moved away from this perspective and departed from theoretical and conceptual notions from Actor-network Theory on material agency.

We first studied the multiple ways in which the Ruhija road in Bwindi (Uganda) is enacted and got objectified by different stakeholders. The Ruhija road is singular in name only. The 'same' materiality – a road – was enacted by different human actors affected by the materiality into different, sometimes overlapping and sometimes contradicting, objects. Matter matters, yet it matters differently depending on the relation in which it is enacted.

Second and related, we showed how different objectifications of the Ruhija road not only led to enduring conflicts, but also contributed to the postponement of the implementation of the proposed plans to pave the road. We specifically focussed on the role of material agency in the constitution of these conflicting differences and related communications of discontent. This discontent was partly embedded in the way the materiality is enacted into a specific object. Simply put: the normative attitudes towards the road were part of the enactment of the road. Those who enacted the material as an *ekikorogyero*, or a non-road only, were clearly dissatisfied with the state it was in, while others, such as many of the conservationists we interviewed, were happy with the unpaved road. There is a clear relation between the way the road is enacted as a road or non-road and the way it is seen as a problem or not. For most actors involved and in most media discourses,

the road was seen as a problem, as something that needed to be changed into a 'real' road by paving. Only for some conservationists, for whom the road was 'living matter', keeping the road as it was, was more important than the disadvantages of an unpaved road.

Third we argued that this conflict was almost accidentally resolved by improving traction without paving the road. The ability of the road to disrupt the movement of politicians led to the initial prompt action, which resulted in fixing some of the most problematic parts of the road, which made the road less dangerous and stopped the road from reminding people about its dangerous existence. As a result, the conflict got pacified. This material pacification is the result of an undeliberate interference that improved all road realities and did not undermine or was at odds with anyone of them.

In terms of theoretical contributions, our observations helped us to rethink and reconceptualise a particular form of non-human agency: material agency. A kind of agency that transcends enabling the movement of tourists (Beeco et al., 2013; Denstadli and Jacobsen, 2011) or attracting tourists (Lew, 1991); to an agency that, among others, allows multiple observations, blocks, renders possible, and influences (Latour, 2005) plans, policies and practices. We showed how materiality is not only vibrant but also how this vibrancy is always relational, and can only be understood when one takes into account the context in which materiality is objectified and co-shapes practices and policies.

Although we were obviously not able to interview the road, our observations, interviews and document analysis made it clear that the agency of the road in our case is undisputed. Its disruptive forces in relation to some (e.g. tourists and local communities) and its productive forces in relation to others (e.g. wildlife) made this clear. The road was opened up by humans and technologies and in turn, the road disrupted technicians, politicians, tourists, residents and other people's movements. In terms of agency, the Ruhija example clearly demonstrates Michael's (2016: 69) argument that 'the agency of non-humans enables the agency of humans which enables the agency of non-humans and so on'. In addition, the ability of the road to disintegrate into dustiness and slipperiness; to get vehicles stuck, placed the road on district and national planning and policy agendas. Hence, we argue that the process of planning and making policies on tourism infrastructure development was co-produced by the Ruhija road, tourism planners and policy makers, and the technologies

involved, among others. Therefore, inspired by Jepson et al. (2011) we discern the road as a conservation and tourism actor in this respect.

Our analysis also revealed that materiality itself is indifferent to particular objectifications (as a road, not a road, living matter). Whether or not the materiality is enacted as a road or a non-road, all actors involved were and are dealing with the limitations it imposes on their commutes. Simply put: the car of the ecologist who believes that the road is part of nature gets just as stuck as the car of the resident who believes the road is not actually a road. So how materiality is observed as an object does not always necessarily relate to its agency. Sometimes, it relates to particular contexts and people's opinions making it more complicated than a matter of paving or not paving. Finally, by providing detailed examples of the situational agency of materiality, we hope we contributed to a body of literature that goes beyond illustrating or proving that matter matters in social sciences, humanities and tourism studies, but that deepens our insight into how it matters in a non-singular world where humans and non-humans relate in vibrant and often surprising ways, infinitely.

Chapter 5

Conclusions and Discussion



5.1. Introduction

If one has to only believe the tourism brochures, Bwindi Impenetrable National Park is characterised by its dense forests and spectacular wildlife. In this thesis I have shown that it can also be characterised by controversies. The park performs a variety of co-existing, sometimes conflicting functions. For long, the Bwindi forest was known as the habitat of a variety of wildlife and a safety net for the livelihoods of adjacent communities (Ahebwa, 2012). As a result of this, the need was felt to conserve the forest, and it was designated as a National Park (Butynski and Kalina, 1993). This declaration in 1991 led to unforeseen negative consequences for the communities that depended on it, and to address these controversies Integrated Conservation and Development Projects (ICDPs) were introduced (Baker et al., 2012). Most of these projects were implemented with varying degrees of success and failure leading to the design of other sets of projects. The continuous search for solutions through trials with various interventions prompted Tumusiime et al. (2018) to describe Bwindi as a celebrity site for research and experimenting with ICDPs. The process of implementing various interventions has also been contested, even if some interventions were envisaged to resolve the controversies. For this thesis I singled out the three main controversies that have persisted around Bwindi since the establishment of the National Park: Batwa marginalisation, gorilla habituation, and paving of the Ruhija road.

Inspired by Venturini's (2010) argument that controversies offer the best opportunity to observe how the world comes into being, I followed the three controversies at Bwindi to understand how these controversies, various actors, and Bwindi are made in daily practices. Informed by Actor Network Theory and more-than-human geographies, I used the concepts of relational agency, enactment and multiplicity as analytical probes into these debates. The main research question I explore in this thesis is: *What are the roles of human, animal and material agency in producing controversies at Bwindi?*

In this thesis I did not only want to answer this question for the sake of another scientific contribution to the academic and non-academic debates on the future of Bwindi; my aim was also to provide an alternative perspective on controversies with a view of providing a deeper understanding of how human and nonhuman actors contribute to conservation and tourism development processes. To do so, I dedicated an empirical chapter to each controversy in which I placed one of these actors at the heart of my analysis. In this final chapter, I will synthesise the findings from the three cases, present the key conclusions from the three empirical chapters, and discuss the implications of using a relational perspective on controversies at Bwindi.

5.2. Role of human, animal and material agency in producing controversies at Bwindi

To deepen our understanding of the roles of humans, animals, and materials in producing controversies at Bwindi, I start by reiterating my analytical starting point that realities of actors (human and nonhuman), controversies, conservation, tourism and development are enacted in various practices and networks (Mol, 2002; Law, 2009; Michael, 2016).

5.1.1. *Multiple relations, multiple realities*

From a relational perspective on agency, I analysed the Batwa, gorillas and Ruhija road not as given entities, but as subjects and objects that get enacted in different networks and hence are multiple. They are made in and participate in a variety of disparate relations. The Batwa interact with each other, neighbours, scientists, conservationists, NGO project staff, the forests, gorillas and tourists to enact multiple realities of both a marginalised tribe, as well as actively engaged people. They co-enact narratives of marginalisation through recounting their histories. They internalise the marginalisation narratives and at the same time participate in forms of activism in which they emphasise their marginalisation. But, beyond these relations, they participate in research projects as experts in forest ecology, and engage with tourism entrepreneurs, tour operators and tourists in the tourism network. Hence, the Batwa turn out to simultaneously be ecology experts, entrepreneurs and victims of eviction from the Bwindi forest. These versions of the Batwa are not mutually exclusive. There are some overlaps, yet at the same time they do not cohere (cf. Mol, 2002). As a result of this multiplicity, controversies become inevitable and it becomes difficult to find a comprehensive intervention to deal with the consequences of Batwa's entanglements in conservation, tourism and development processes as the Batwa are "inextricably linked up with how they are enacted" (Mol, 1999: 74).

The gorillas relate to each other in complex ways through behavioural dynamics making it possible for them to be categorised as habituated and unhabituated or 'wild'. Yet, as we have argued, these categories are not exhaustive. Gorillas relate with other actors – human and nonhuman – in ways that surpass conventional categorisations such as wild, liminal and domestic animals (Donaldson and Kymlicka, 2011), or habituated and unhabituated. I observed that some gorillas, or even the same individual gorilla or group of gorillas, could become unhabituated, semi-habituated, habituated, de-habituated, and re-

habituated. This incoherent 'gorilla-ness' sometimes made it difficult to implement conservation interventions and brought about inconclusive debates about the best way to conserve gorillas without exploiting them. Moreover, in some instances, some gorillas even defied the categorisations and theorisations of, for example, biopolitics arguing that docile bodies are created for their encounter value (Rinfret, 2009), while in other instances verifying these arguments. That gorillas are capable of alternating between different agencies (see Michael, 2016) makes it possible to argue for diverse ideas about their exploitation (Laudati, 2010a) and endangerment (Goldsmith, 2014), while at the same time verifying our argument of their adaptable capabilities and contribution to their own conservation (Chapter 3).

In a similar manner, the materiality of the Ruhija road got entangled with various actors and processes to produce multiple realities. The road, in relation with changing weather conditions, conservation ideals, vehicle tyres, itineraries, community activities such as trade and farming, government economic development practices, policymaking processes and competitiveness assessments, became different things. The road became a tourism road. One that, in its current unpaved state, sometimes enables and at other times blocks tourists' travel to and from Bwindi. The same road became an ecological road that, in its unpaved state, promotes ecological functions and becomes part of the living matter that the conservationists aspire to protect. At the same time, the Ruhija road became a non-road or *ekikorogyero* that sometimes hinders, disrupts and irritates resident communities. I further observed that these multiple, yet co-existing, roads made any attempt at paving very complicated. Attempts to pave the tourism and non-road became highly contested because paving would 'destroy' the conservation road. Because of these, plans to pave the Ruhija road were halted. However, when temporary stabilisation was achieved with rock fill and laterites, the apparent controversy was pacified as this intervention addressed the disruption and irritation of the non-road and tourism road, while conforming to the prerequisites of a conservation road.

At this point two issues have to be clarified here. First, granting a similar analytical status to Batwa, gorillas and Ruhija as multiple and effects of relational processes does not imply equating Batwa to gorillas and roads. Second, giving up on an ideal of pure untainted entities in the name of multiplicity, as emphasised by ANT, does not imply insensitivity to the power relations and thus foreclosure of possibilities to critique conservation and development processes. Rather, by emphasising multiplicity and relationality, this thesis makes the idea apparent that "power relations are ephemeral in actor-networks" (Shimoyamada, 2019: 199),

and all actors, seemingly powerful or less powerful, participate in the production of these power relations. It is within these relations that human, animal and material agencies are produced, distributed, and reshuffled. In turn, these enactments of actors and agencies produce particular versions of the actors themselves, particular effects on the Bwindi landscape, as well as conservation, tourism and development policies and practices. This iterative process is nonlinear. It is sometimes more sporadic and at other times it appears more regular. As such, it is productive and performative. This relational process produces multiple co-existing realities.

5.1.2. Productive relations

The multiple enactments of the Batwa, gorillas and Ruhija road have been influential in enabling particular ways of talking or not talking about and, in the case of the Batwa, with them. Such communications had a further performative effect as soon these communications and discourses were translated into policy processes and management interventions.

The ability of the Batwa to tell stories and give musical performances about their former lifestyle in the forest and their relations with wildlife and their later eviction was continuously reflected in media, activists' narratives, tourist activities, development practices and academic articles. These enactments elicited sympathy evident in philanthropic projects, court cases, activism and financial donations to support the Batwa. Yet that is not all. These enactments have also produced particular versions of the 'Batwa-the marginalised': passive victims in need with little or in some cases even no agency. So, does our exploration of the complexity and multiple versions of the Batwa imply that these projects should be stopped because Batwa are actively taking part in development activities? My main argument in Chapter 2 is that if these projects considered this multiplicity and the possibilities and impossibilities that accrue from it, they would relate differently with the Batwa, perhaps in more empowering ways. Ways that take Batwa's ecological knowledge as the starting point, to make 'real' partnerships in which Batwa are in charge of the conservation, tourism or other development projects. Moreover, the relational multiple perspectives inarguably open up (and also close) particular discussions, possibilities and impossibilities too. For example, discussions about how to 'help' the Batwa, or identifying and designing suitable development options (Balenger et al., 2005) may be closed, at the same time opening up discussions about how to best employ the Batwa's skills and expertise.

As elaborated in Chapter 3, gorilla habituation for tourism was premised to be a conservation tool for both the gorillas and their habitat (Goldsmith, 2014). Within this logic, scientific procedures such as ensuring a standard minimum viewing distance of seven meters, avoiding food provisioning, verbally alerting gorillas about the presence of humans, and limiting numbers (Williamson and Feistner, 2003; Goldsmith, 2005; Knight, 2009) are prescribed. However, a myriad of relations and unforeseen consequences ensued. While some gorillas were able to 'fit' in with scientific procedures of habituation, others did not. Although ecologists had established that keeping seven meters away from gorillas was the safest viewing distance (Nkurunungi, 2013), some gorillas started to move closer to tourists (Sandbrook and Semple, 2006). In addition, gorillas became capable of dismantling snares and adapting to new spaces within and outside the forest. The changes in the behaviour of gorillas, raised fear for health risks associated with these 'new' relations, leading to landscape modifications: planting tea to keep gorillas inside the forest, establishing Human Gorilla [HUGO] conflict resolutions teams, and financial flows to support these interventions. In this regard, I argue that gorilla tourism, habituation and gorilla conservation are produced in these relations where gorillas are able to interact with various actors. In turn, these relations further produced particular management interventions. The adaptive capacity of the gorillas to dismantle snares, get used to humans, different diets, environments, and situations, and yet remain able to go back to 'wildness', further complicates the discussions on habituation as the debate goes beyond the questions of whether habituation is beneficial or not, or the limits beyond which gorillas can be habituated or not. Such capabilities not only sustain conflicts, commonly referred to as human-gorilla conflicts, but also make it difficult or even impossible to resolve these conflicts because gorillas may adapt to 'new' interventions.

Furthermore, in Chapter 4 I showed how the changing material conditions of the Ruhija road in relation to road users, weather and engineering interventions contributed to the intensity of debates about paving or not. These relations produced a tourist road, a non-road (*ekikoregyero*), and an ecological road. By becoming slippery, dusty and more or less stable in different seasons, the road facilitated the pathways for these debates as they became more frequent when the road disrupted most activities. Additionally, the ability of the road to stabilise after temporary fixation pacified these debates. Important to note is that, within the period of this research, the Ruhija road differed a bit from the first two cases. While the Batwa were able to counter the marginalising discourses, and the gorillas defied some of the

scientific procedures and assumptions, the debate on the road seemed to simmer or got resolved at least temporarily when the traction of the road was improved. This improvement did work out as such because it meant that it was now possible to use the non-road and tourism road, but still within the horizon of expectations (or the wishes, or demands) of the ecologists.

5.2. Implications of a relational perspective on conservation and tourism development at Bwindi

Based on the empirical chapters and the analysis, I now turn to the implications of my results to the conservation, tourism and community development processes at Bwindi.

5.2.1. *Dealing with and making use of human and nonhuman agency*

The first implication is that conservation, tourism and development planners are dealing with multiple realities and have to depart from unrealistic assumptions that the Batwa, gorillas, the Ruhija road and other entities are single, homogenous and fixed. The Batwa can no longer fit into the descriptions of marginalisation alone, and therefore cannot continue to only be dealt with as such. They need to be engaged with as co-actors in the conservation, tourism and development practices at Bwindi. Equally, gorillas are more than an endangered species with particular and fixed behaviours, predictable and manageable if adhering to certain rules and guidelines. They have to be dealt with as both bodied furred animals, endangered species and unpredictable and adaptive actors. The Ruhija road too cannot continue to be seen only as living matter, a tourism road or a 'non road', but should also be engaged with as a vibrant political actor whose boundaries and effects go beyond Bwindi to engineers' design programmes, parliamentary chambers, pregnant mothers' bodies, thus contributing to the success or failure in implementing particular policies. Moreover, the contribution of the road itself to resolving the controversy about paving, not paving or re-routing, should not be overlooked.

Another implication is that, in practice, conservation, tourism and community development related problems cannot be solely solved or addressed only by human experts. Therefore, I argue that the processes of designing solutions or interventions should reflect on, learn from, and deliberately incorporate actions of non-humans. And most importantly, conservationists and development planners should acknowledge the ways non-humans

influence or contribute to human interventions. Already, Jepson, Barua and Buckingham (2011) have identified various non-conventional actors (such as Asian elephant, GIS devices) and possibilities of thinking about what a conservation actor is. Elsewhere, Van der Duim, Ren and Jóhannesson (2012) have also highlighted the more-than-human actors that shape tourism. By highlighting the role of the Batwa – presumed to be passive with no expertise – in conservation and tourism development, the role of gorillas in their own habituation and the shaping of the Bwindi landscape, as well as how the Ruhija road influences the implementation of plans and policies, this theses has illustrated this interplay of human, animal and material agencies in conservation, tourism and development processes at Bwindi.

Working on the three empirical chapters taking note of these agencies leaves me pondering what could happen if the conservation and tourism managers would make use of the agencies that arise from these more-than-human interactions or take into consideration the multiplicity of the actors that they are trying to deal with. Perhaps, one of the outcomes would be a realisation that these controversies and conflicts are also a matter of ontological politics (cf. Mol, 1999) whereby actors are “pressing one kind of reality rather than another” (Law, 2019: 11). And by that, it would imply that the controversies are not ‘out there’, and the managers are not ‘above them’. Rather, heterogenous actors are entangled in intricate relations that co-produce controversies, management practices, conservation, tourism, multiple versions of the actors themselves as well as other realities.

5.2.2. Beyond instrumentalism towards adaptable conservation

A relational perspective on Bwindi has revealed that conservation, tourism and community development practice is not a linear process. Policy and practice take different trajectories depending also on the materiality, animals and other people’s re-actions, counter-actions and inter-actions to these policies and practices. The connectedness of humans and non-humans is evident in the multiple complex heterogenous relations between humans, animals and materiality. Most importantly, these relations and the resultant outcomes are sporadic and unpredictable, implying that attempts to follow a particular procedure or intervention are more complicated than one would think. Already, wildlife conservationists are increasingly acknowledging the complexities and uncertainties associated with conservation practices, and have come up with the concept of adaptive management in conservation.

Organ et al. (2012: 43) define adaptive management as “a rigorous stepwise process designed to achieve learning from the management experience”. Organ et al. (2012) further distinguish adaptive management from adaptable management in which the latter denotes “the ability to change oneself or management system in adjusting to occurring changes” (p.43). McDonald-Madden et al. (2010) used mathematical models to illustrate the application of active adaptive management to deal with a very uncertain facial tumour in a Tasmanian devil, a threatened species. However, in the context of Bwindi, the current impasse in conservation interventions might be overcome by allowing both flexibility and stepwise actions in relation to how changes arise. This further implies that managers and planners at Bwindi should ‘slow down’ (Ren et al., 2015), pay attention to the multiple relations that produce conservation and tourism, and recognise that controversies sometimes do not have to be resolved as soon as possible – as doing so forecloses many possibilities. Moreover, if looked at with an open mind, some of these inconvenient realities such as policy failures, or the power of non-humans, can provide new starting points for fresh discussions. In a more pragmatic way, focusing on adaptability could be less stressful than less fruitful attempts to design perfect ‘silver bullets’ for conservation and tourism related challenges.

In addition, the capacity of both humans and non-humans to adapt to different situations and relate with other actors in novel ways implies that possibilities and challenges of conservation and tourism development processes can never be fully and exhaustively comprehended. This makes it more sensible to rethink ‘win-win’ narratives, blueprints or ‘best’ and permanent solutions to these problems because, soon or later, these could be contested or disrupted in ways that had not been previously imagined. This is where an adaptive mindset contributes a different way of analysing the question of “who poaches and why despite 25 years of ICDPs at Bwindi?” (Baker, 2015:16). At Bwindi, ICDPs were designed with a view of winning local community commitment and support for conservation (Blomley, 2003; Baker et al., 2012). This implies that ICDPs had been designed to eliminate poaching. A relational and therefore adaptive perspective would start from the position that ICDPs are not a means to an end but one of the many ordering attempts.

5.3. Controversies revisited

This thesis began with a description of the debates around conservation of African landscapes and Bwindi in particular; narrowing down to the three dominant controversies

around Bwindi. I showed that managerial and critical perspectives define these controversies as ‘problematic’, and the subjects/objects of these controversies as passive and static. As a result, for more than 25 years, conservation managers and development planners at Bwindi have endlessly been trying to (dis)solve the controversies as quickly as they arose. However, there is a seeming impasse as the interventions have either not adequately solved the controversies or, in some cases, even fuelled new ones. Throughout this thesis, I have problematised this view of controversies as negative ‘forces’ that *must* always be urgently resolved. To do so, I first deconstructed the nature and state of the three subjects/objects of controversies as actively engaged in multiple relations – thus co-producing these controversies. My main argument is that controversies are not always negative, and do not always have to be resolved as quickly as possible. Controversies are inherent in all relation-building processes in which humans and non-humans equally play a role in their enactment.

This perspective on controversies takes the theoretical and analytical scope of conservation, tourism and livelihood debates at Bwindi beyond instrumental and critical perspectives. In addition, emphasising the multi-faceted nature of controversies broadens extant conceptualisations of human-wildlife conflicts as polarised interactions (Madden, 2008), to the range and diversity of relations in and through which these conflictual situations arise and become irresolvable. Based on my empirical chapters, I reiterate my argument by posing the following propositions:

5.3.1. Controversies make places and places make controversies

On maps and cartographic descriptions, Bwindi is a forest occupying Euclidean space with specific coordinates. However, post-structuralist geographers offer alternative ways of understanding places such as Bwindi. For example, Murdoch(2006: 22) explains that:

Space is made of multiple relations. These relations meet in space, at meeting places. There can be conflicts as sets of relations jostle for spatial supremacy. Equally, there can be consensus as alliances are built and alignments are forged.

In Chapter 2, I described how the names and boundaries of Bwindi changed over the years (see table 1). In fact, there are still disputes about the actual boundaries (Mugenyi, 2006). Thus, even what currently appears to be a distinct delimited space of 321 square

kilometres has been a result of not only cartographical and scientific processes but also heated debates over boundaries, appropriate names, increasing population vis-à-vis agriculture and pit-sawing induced deforestation. In view of the processes at Bwindi, and this relational understanding of place, Bwindi is a product of, and continues to shape and be shaped by, controversies, as the forest is entangled with heterogeneous actors. So, I argue that controversies have been instrumental in the enactment of the realities (of Bwindi itself, actors, conservation, development, tourism, and other controversies) at Bwindi. Therefore, by opening up their minds to controversies, instead of rushing to resolve them, conservation area managers and planners at Bwindi could slow down, paying attention to coexisting multiple realities and reflect on ways of harnessing controversies, because, following Pellis (2019), any controversy wasted could mean a lost opportunity.

5.3.2. Every story is a particular enactment of reality

Bwindi abounds with stories. These stories are another subject of controversy. There are accounts of the ecological status of the forest (Butynski, 1984c; UNEP-WCMC, 2011); conversion of the forest into a National Park (Butynski and Kalina, 1993); various conflicts (Blomley, 2003; Baker et al., 2012); gorilla tourism (Ampumuza, 2011); revenue sharing schemes (Ahebwa, 2012) and successful linkages between conservation and development (Robbins et al., 2011; Baker et al., 2013).

However, some scholars have challenged, especially, the accounts about successful linkages between conservation and development at Bwindi. Tumusime, Bitariho and Sandbrook (2018) argue that these narratives serve the interests of those who tell these stories. Therefore, they recommend that such narratives at Bwindi should be taken with a pinch of salt because, in their view, not all things said are true. But how feasible is it to dismiss some (with the difficulty of even determining which ones) as untrue? How can we best understand the various narratives at Bwindi?

Following ANT's emphasis on telling stories about relations, and how things work in practice (Jóhannesson et al., 2014), the empirical chapters of this thesis illustrated that the different narratives are particular enactments of reality. Moreover, these chapters indicate that these multiple realities coexist. Therefore, it is more fruitful to view these narratives as different realities enacted in tourism, scientific, conservation, NGO, government or local practices rather than disqualifying them as untrue.

5.3.3. *Passivity in the context of controversies denotes presence of agency, not its absence*

The ANT view on agency enabled me to analyse the various ways in which people, gorillas and the Ruhija road contribute to the controversies at Bwindi. Latour (2005: 71) explains about agency:

if we stick to our decision to start from the controversies about actors and agencies, then anything that does modify a state of affairs by making a difference is an actor (...) Thus, the questions to ask about any agent are simply the following: Does it make a difference in the course of some other agent's action or not? Is there some trial that allows someone to detect this difference?

Latour (2005) further illustrates his argument about the agency of non-humans by pointing out the differences between hitting a nail without a hammer, closing doors without locks, or bathing with and without soap among others. Recently, Law and Mol (2020) have problematised the notion of intentionality in agency with an example of cooking food. They argue that in other languages:

cooking is done to passive food while in French, French food itself is actively doing the cooking. It doesn't do so all by itself. I facilitate it along with the pan, the heat beneath it, and other bits and pieces. In other words, in French cooking is a process involving different elements that invite or make each other act; that afford each other to do what they do; or in some cases simply allow it. (Law and Mol, 2020: 264-265)

At Bwindi, almost all managerial and critical arguments about the Batwa marginalisation, gorilla habituation and paving the Ruhija road portray their subjects as being passively manipulated by humans. The Batwa are portrayed to be passively pushed to the margins by conservation and development processes, gorillas as passively taking instructions from the habituation scientists and the Ruhija road as passively fixed by engineers. However, in all three empirical chapters, it became apparent that even in instances where they indeed seemed to be passive victims, docile bodies or an inert object – they still made a difference in the way other actors related with them, so they did have agency. For example, when sections of the Ruhija road were stabilised with rock fill and laterites, it seemed like the road indeed is an inert object easily fixed by engineers. However, this fixation had the profound effect of reducing the discontent of other actors and changing their travel behaviour. These observations emphasise that agency is an inevitable outcome of relations.

5.4. Limitations of this study and suggestions for further research

This thesis is a particular enactment of reality at Bwindi because social inquiry and its methods enact particular realities (Law and Urry, 2004). There are various other analytical, theoretical and methodological choices that can be made to come up with different conclusions. My relational view of agency enabled me to understand that even in situations of seeming passivity, there was agency. This view of agency could be extended to other, less-debated actors at Bwindi such as microbes, rocks, invertebrates plants and rivers. For example, ‘conservation actors’ like microbes (Jepson et al., 2011) have a significant role of “recycling the primary elements that make up all living systems especially carbon, oxygen and nitrogen” (Gupta et al., 2017: 43). Similarly, research could focus on devices and technologies such as camera traps and GIS, that generate particular information in the form of maps of activities of people and animals in Bwindi, which is used to make policy and management decisions. Other non-human actors to be considered are gorilla tracking permits that not only provide access to gorillas, but have also been contentious as these attract all sort of actors and networks (Ahebwa, 2012).

In Chapter 2, I dwelt on how the Batwa relate with a variety of actors to reproduce, challenge and circumvent particular assumptions about them. My analysis of the performative effects of the enactment of multiple Batwa-ness enabled me to understand the various organisations involved, the financial flows, and possibilities of other modes of relating with the Batwa. Further research in this area could entail a critical analysis of the detailed workings and effects of NGOs around the Batwa. More still, participatory action research that for example implements a joint project with the Batwa on convivial conservation or human-gorilla co-existence strategies to address the current human-wildlife issues at Bwindi and other national parks, would be a great way to further this research. Finally, another way to follow up on this research would be to study the workings of adaptable conservation in the context of Bwindi, sensitised by the concepts of relational agency, multiplicity and enactment.

All in all, in this thesis I have emphasised that the historical controversies at Bwindi have always been studied and engaged with as negative and having to be urgently solved. Yet, these controversies have persisted for more than 20 years, implying a seemingly endless cycle of problem-solution trials (Tumusiime et al., 2018). In this PhD thesis I have opened up this cycle by problematising both the controversies and three key subjects of these controversies. Throughout the thesis, it became apparent that controversies are inevitable outcomes of

relational processes, and unconventional actors – who are not usually taken seriously – play significant roles in enacting the realities at Bwindi. Batwa were seen to co-create realities of marginalisation and active involvement, gorillas contributed to their conservation and exploitative relations [tourist gaze for money], and the changing material conditions of the Ruhija road affected 'tourism roads' policy and planning outcomes. In addition, it became clear that controversies expose as well as create fissures in a network, thereby creating spaces for innovations. With this different, relational analysis of controversies at Bwindi, I hope to have contributed a perspective that enables an understanding of the non-standard, unordered and fleeting realities observed on the ground (Faik et al., 2013), and arising from conservation-development related research. In short, a starting point for engaging with the complexities of the conservation-tourism development nexus.

References

- Adams, WM (2013) *Against Extinction: The Story of Conservation*. London: Earthscan.
- Ahebwa, WM, Van der Duim, VR. and Sandbrook, C. (2012) Tourism revenue sharing policy at Bwindi Impenetrable National Park, Uganda: A policy arrangements approach. *Journal of Sustainable Tourism* 20(3): 377–394.
- Ahebwa, WM (2012) *Tourism, livelihoods and biodiversity conservation: an assessment of tourism related policy interventions at Bwindi Impenetrable National Park (BINP), Uganda*. PhD Thesis. Wageningen: Wageningen University.
- Amir, APH .(2019) Who knows what about gorillas? Indigenous knowledge, global justice, and human gorilla relations. *IK: Other Ways of Knowing* 5: 1–40.: DOI: 10.26209/ik560158
- Ampumuza, C .(2011) *Multi-level Partnerships in Uganda's Gorilla Tourism: Power, Processes and Poverty: the Case of Bwindi Impenetrable National Park*, Saarbrücken: LAP LAMBERT Academic Publishing.
- Anderson, B. and Wylie, J. (2009) On geography and materiality. *Environment and planning A* 41(2): 318-335. DOI: 10.1068/A3940.
- Archabald, K. and Naughton-Treves, L . (2001) Tourism revenue-sharing around national parks in Western Uganda: Early efforts to identify and reward local communities. *Environmental Conservation* 28(2): 135–149.
- Arnold, C. (2014). *Strongest evidence yet that pygmies' short stature is genetic*. Available at: <https://news.nationalgeographic.com/news/2014/08/140818-pygmy-phenotype-africa-short-dna-genetics-science> (accessed 13 September 2019).
- Baguma, R. (2009).. Batwa to petition parliament over land: *The New Vision*. 6 March, 9
- Baker, J., Bitariho, R., Gordon-Maclean, A. et al. (2013). Linking protected area conservation with poverty alleviation in Uganda: integrated conservation and development at Bwindi Impenetrable National Park. In: Smith, JB (Ed), *National Parks: Sustainable Development, Conservation Strategies and Environmental Impacts*. Nova Science Publishers, Inc, 47-103.
- Baker, J. Milner-Gulland, E. and Leader-Williams, N. (2012) Park gazettelement and integrated conservation and development as factors in community conflict at Bwindi Impenetrable Forest, Uganda. *Conservation Biology* 26(1): 160–170.
- Baker, J., and Brinckerhoff, P. (2015). *Research to policy: building capacity for conservation through poverty alleviation*. Final Project Workshop, 19 to 21 January 2015: Enhancing Equity within conservation: Bwindi Impenetrable National Park. Available at: <https://pubs.iied.org/g03901> (accessed 12 March, 2018).
- Balenger, S., Coppenger, E., Fried, S., et al. (2005) *Between forest and farm: Identifying appropriate development options for the Batwa of Southwestern Uganda*. Washington, DC: George Washington University.

- Banbury, C., Herkenhoff, L. and Subrahmanyam, S. (2015). Understanding different types of subsistence economies: The case of the Batwa of Buhoma, Uganda. *Journal of Macromarketing*, 35(2), 243–256.
- Barad, K. (2007) *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham: Duke University Press.
- Barba Lata, I. and Minca, C. (2018). The floating churches of Volgograd: River topologies and warped spatialities of faith. *Transactions of the Institute of British Geographers* 43(1): 122-136.
- Barker, C. (2003). *Cultural studies: Theory and practice*. London: Sage.
- Barr, R., Burgués, I., Asuma, S. et al. (2015) *Pave the Impenetrable: An economic analysis of potential Ikumba--Ruhija road alternatives in and around Uganda's Bwindi Impenetrable National Park*. Conservation Strategy Fund and International Gorilla Conservation Programme. Available at : <https://www.conservation-strategy.org/publication/pave-impenetrable-economic-analysis-potential-ikumba-ruhija-road-alternatives> (Accessed May 12, 2016).
- Barua, M. (2014) Volatile ecologies: Towards a material politics of human–animal relations. *Environment and Planning A* 46(6): 1462–1478.
- Barua, M. (2017). Nonhuman labour, encounter value, spectacular accumulation: The geographies of a lively commodity. *Transactions of the Institute of British Geographers* 42(2): 274–288.
- Baxter, P. and Jack S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The qualitative report* 13(4): 544-559.
- Beeco, J.A., Huang, W-J., Hallo J.C., et al. (2013). GPS tracking of travel routes of wanderers and planners. *Tourism Geographies* 15(3): 551-573.
- Behm-Masozera, A. (2014). *Pave the Impenetrable? Exploring the costs and benefits of road improvements in and near Bwindi*. Available at: <https://igcp.org/updates/pave-the-impenetrable/>. (Accessed May 11, 2016).
- Bekoff, M. (2010). *The Emotional Lives of Animals: A Leading Scientist Explores Animal Joy, Sorrow, and Empathy—And Why They Matter*. Novato: New World Library.
- Bello, F.G., Carr, N. and Lovelock, B. (2016). Community participation framework for protected area-based tourism planning. *Tourism Planning & Development* 13(4): 469-485.
- Bennett, J. Cheah P, Orlie M.A., et al. (2010). *New materialisms: Ontology, agency, and politics*. Durham: Duke University Press.
- Bennett, J. (2004). The force of things: Steps toward an ecology of matter. *Political Theory* 32(3): 347-372.
- Bennett J. (2010). *Vibrant matter : a political ecology of things*. Durham: Duke University Press.
- Berghaller, H. (2014). Limits of Agency: Notes on the Material Turn from a Systems-Theoretical Perspective. ' in S. Lovino and S. Oppermann (eds) *Material Ecocriticism*. Bloomington, IN: Indiana University Press, 37–50.
- Beunen, R., Van Assche, K., and Duineveld, M. (2013). Performing failure in conservation policy: The implementation of European Union directives in the Netherlands. *Land Use Policy*, 31, 280–288.
- Beyeza-Mutambukah, B. and Zaninka, P. (2016) Uganda In: Vinding D and Mikkelsen C (eds) *The Indigenous World 2016*. Copenhagen. Transaction Publishers, 409-413.
- Blackburn, M. (2006). Doc's aid blow. *Evening. Gazette*, March 23, 2006.pp.22

- Blomley, T. (2003). Natural resource conflict management: the case of Bwindi Impenetrable and Mgahinga Gorilla National Parks, southwestern Uganda. In: Castro AP and Nielsen E (eds) *Natural Resource Conflict Management Case Studies: An Analysis of Power, Participation and Protected Areas*. Rome: Food and Agriculture Organization of the United Nations.231–250.
- Blomley, T. (2010). *Development AND Gorillas?: Assessing Fifteen Years of Integrated Conservation and Development in South-western Uganda*. London: IIED.
- Boers, B. and Cottrell, S. (2007). Sustainable tourism infrastructure planning: A GIS-supported approach. *Tourism Geographies* 9(1): 1-21.
- Boonman-Berson, S., Turnhout, E. and Carolan, M.(2016). Common sensing: Human-black bear cohabitation practices in Colorado. *Geoforum* 74: 192–201.
- Braun, V., Clarke, V., Hayfield, N., and Terry, G. (2019). Thematic Analysis. In: Liamputtong, P. *Handbook of Research Methods in Health Social Sciences* (pp. 843–860). Singapore: Springer Singapore. https://doi.org/10.1007/978-981-10-5251-4_103.
- Brockington, D. (2002). *Fortress Conservation: The Preservation of the Mkomazi Game Reserve, Tanzania*. Bloomington: Indiana University Press.
- Brockington, D. and Duffy, R. (2011). *Capitalism and conservation*. West Susse: John Wiley & Sons.
- Brockington, D. and Scholfield, K. (2010). The conservationist mode of production and conservation NGOs in sub-Saharan Africa. *Antipode* 42(3): 551-575.
- Burnett, J. (2012). *Forest peoples return to their land as guides*. Available at: National Public Radio. <https://www.npr.org/2012/10/12/161885322/forest-people-return-to-their-land-as-tour-guides>.
- Büscher, B., Sullivan, S., Neves, K., Igwe, J., and Brockington, D. (2012). Towards a synthesized critique of neoliberal biodiversity conservation. *Capitalism Nature Socialism* 23(2), 4–30.
- Butynski, T.M. (1984) *Ecological survey of the impenetrable (Bwindi) Forest Uganda and recommendations for its conservation and management*. Technical Report, pp.166–183. Wildlife Conservation International, New York. Zoological Society, USA.
- Butynski, T.M. and Kalina, J. (1993). Three new mountain national parks for Uganda. *Oryx* 27(4): 214–224.
- Butynski, T.M. and Kalina, J. (1998). Gorilla tourism: A critical look. In: *Conservation of Biological Resources*. New York: Wiley, 294–313.
- Calderwood, L.U. and Soshkin, M. (2019). *The Travel & Tourism Competitiveness Report 2019: Travel and Tourism at a Tipping Point*. World Economic Forum.
- Cárdenas-García, P.J. and Sánchez-Rivero, M. (2015). Tourism and economic development: analysis of geographic features and infrastructure provision. *Current Issues in Tourism* 18(7): 609-632.
- Carlile, P.R., Nicolini D., Langley A, et al. (2013). *How matter matters: Objects, artefacts, and materiality in organization studies*. Oxford: Oxford University Press.
- Carter, B. and Charles, N. (2013). Animals, agency and resistance. *Journal for the Theory of Social Behaviour* 43(3): 322–340.
- Chiew, F. (2014). Posthuman ethics with Cary Wolfe and Karen Barad: Animal compassion as transspecies entanglement. *Theory, Culture & Society* 31(4): 51–69.

- Cincinnati, N. (2015). Too sullen for survival. In: Nance S, Colby J, Gibson AH, et al. (eds) *The Historical Animal*. New York: Syracuse University Press.
- Coole, D. and Frost S. (2010). *Introducing the new materialisms. New materialisms: Ontology, agency, and politics*. Durham: Duke University Press
- Cunha, M. C., and De Almeida, M. W. (2000). Indigenous people, traditional people, and conservation in the Amazon. *Daedalus* 129(2): 315–338.
- Cunningham, A.B. (1996) .People, park and plant use: Recommendations for multiple-use zones and development alternatives around Bwindi Impenetrable National Park, Uganda. In: A S (ed) *People and Plants Working Paper*. Paris: UNESCO, 18-25.
- Dalakoglou, D. (2017). *The road: An ethnography of (im) mobility, space, and cross-border infrastructures in the Balkans*. Manchester: Manchester University Press.
- de Silva, S. and Srinivasan, K. (2019). Revisiting social natures: People-elephant conflict and coexistence in Sri Lanka. *Geoforum* 102: 182–190.
- Denstadli, J.M. and Jacobsen, JKS (2011.) The long and winding roads: Perceived quality of scenic tourism routes. *Tourism Management* 32(4): 780-789.
- Derrida, J. (2008). *The Animal That Therefore I Am*. New York: Fordham University Press.
- Despret, V. (2016). *What Would Animals Say if We Asked the Right Questions?* Minneapolis: University of Minnesota Press.
- Donaldson, S, and Kymlicka, W, (2011). *Zoopolis: A Political Theory of Animal Rights*. Oxford: Oxford University Press.
- Donázar, J.A., Ceballos, O. and Cortés-Avizanda, A. (2018). Tourism in protected areas: Disentangling road and traffic effects on intra-guild scavenging processes. *Science of the total environment* 630: 600-608.
- Dressler, W. (2014). Green governmentality and swidden decline on Palawan Island. *Transactions of the Institute of British Geographers*, 39(2), 250–264.
- Duffy, R., John, F.A., Busscher, B., et al. (2015) The militarization of anti-poaching: Undermining long term goals? *Environmental Conservation* 42(4): 345–348.
- Duineveld, M., Van Assche, K. and Beunen R. (2017). Re-conceptualising political landscapes after the material turn: a typology of material events. *Landscape research* 42(4): 375-384.
- Fagny, M., Patin, E., MacIsaac, J. L., Rotival, M., et al. (2015). The epigenomic landscape of African rainforest hunter-gatherers and farmers. *Nature Communications*, 6(1).
<https://doi.org/10.1038/ncomms10047>.
- Faik, I., Thompson, M. and Walsham, G. (2013). Facing the dilemmas of development: understanding development action through actor-network theory. *Centre for Development Informatics*: 1-33.
- Flora & Fauna International, (2013). *Batwa cultural values in Bwindi Impenetrable and Mgahinga Gorilla National Parks, Uganda; A report of a cultural assessment*. Available at : <https://assets.fauna-flora.org/wp-content/uploads/old-images/Batwa-cultural-values-report.pdf>. (Accessed October 15, 2018).
- Fossey, D. (1970). Making friends with mountain gorillas. *National Geographic* 137: 48–67.

- Fossey, D. (1972). Vocalizations of the mountain gorilla (*Gorilla gorilla beringei*). *Animal Behaviour* 20(1): 36–53.
- Fossey, D. (1974). Observations on the home range of one group of mountain gorillas (*Gorilla gorilla beringei*). *Animal Behaviour* 22(3): 568–581.
- Foucault, M. (1976), *The History of Sexuality. Volume 1: An introduction*. New York: Pantheon Books
- Gardner, B. (2017.) Stopping the Serengeti Road: Social Media and the Discursive Politics of Conservation in Tanzania.. In: Chari, S and Freidberg, S et al (eds), *Other Geographies: The Influences Of Michael Watts*. West Sussex. John Wiley and Sons Ltd, pp.127-142.
- Getz, D. (1986). Models in tourism planning: Towards integration of theory and practice. *Tourism Management* 7(1): 21-32.
- Goldsmith, M. (2005.) *Habituating primates for field study—ethical considerations for African great apes. Biological anthropology and ethics; from repatriation to genetic identity*. New York: State University of New York Press
- Goldsmith, M.L. (2014.). Mountain gorilla tourism as a conservation tool: Have we tipped the balance? In: Russon AE and Wallis J (eds) *Primate Tourism: A Tool for Conservation?* Cambridge: Cambridge University Press. pp.177.
- Gregory, G., and Vaccaro, I. (2015). Islands of Governmentality: Rainforest Conservation, Indigenous Rights, and the Territorial Reconfiguration of Guyanese Sovereignty. *Territory, Politics, Governance* 3(3): 344–363.
- Gruen, L., Fultz, A., and Pruetz, J. (2013). Ethical issues in African great ape field studies. *ILAR Journal* 54(2): 24–32.
- GSTA. (2011) *Uganda/Sustainable Tourism in the Albertine Rift (USAID-STAR) Final Report*. Kampala.
- Gupta, A., Gupta, R., and Singh, R.L. (2017.) Microbes and environment. Principles and applications of environmental biotechnology for a sustainable future. In: Singh, RL (ed) *Principles and Applications of Environmental Biotechnology for a Sustainable Future*. Singapore. Springer Science+Business Media Singapore Pte Ltd. pp. 43-84
- Haas, A. D., and Muchemi, J. (2011). *Uganda: P3DM and Participatory Mapping by Batwa towards conservation of Mountain Gorillas in Bwindi National Park*. Available at: <https://africanconservation.org/wildlife-news/great-apes-news/uganda-p3dm-and-participatory-mapping-by-batwa-towards-conservation-of-mountain-gorillas-in-bwindi-national-park-2/>. (Accessed August 24, 2018).
- Hamilton, A. C. (1974). Distribution patterns of forest trees in Uganda and their historical significance. *Plant Ecology* 29(1): 21-35.
- Hamilton, A.C. (1987). *Deforestation in Uganda*. Oxford: Oxford University Press.
- Hancock, P. and Georgiou, J. (2017). The use of language to disempower: two related studies of women in Sri Lanka. *Journal of Developing Societies*, 33(1): 27–50.
- Haraway, D.J. (2008). *When Species Meet*. Minneapolis, MN: University of Minnesota Press.

- Harcourt, A. and Stewart, K.J. (2007). Gorilla society: What we know and don't know. *Evolutionary Anthropology: Issues, News, and Reviews* 16 (4): 147–158.
- Harcourt, A.H. (1981). Can Uganda's gorillas survive?—a survey of the Bwindi Forest Reserve. *Biological Conservation* 19(4): 269-282.
- Harrisberg, K. (2014). *Uganda's Batwa, and Conservation's Double-Edged Sword*. Daily Maverick: Available at: <https://www.dailymaverick.co.za/article/2014-09-16-ugandas-batwa-and-the-conservations-double-edged-sword/#.WigdjVWnF0w>. (Accessed April 20, 2015).
- Harrison, M., Baker, J., Twinamatsiko, M., et al. (2015). Profiling unauthorized natural resource users for better targeting of conservation interventions. *Conservation Biology* 29(6): 1636-1646.
- Hickey, J.R., Uzabaho, E., Akantorana, M., et al. (2019). *Bwindi-Sarambwe 2018 Surveys: monitoring mountain gorillas, other select mammals, and human activities*. Kampala: GVTC, IGCP & partners.
- Hurn, S. (2015). Baboon cosmopolitanism: More-than-human moralities in a multispecies community. In: *Cosmopolitan Animals*. New York: Springer, pp.152–166.
- Igoe, J., and Brockington, D. (2007). Neoliberal conservation: A brief introduction. *Conservation and Society* 5(4): 432–449.
- Jean-Klein, I., and Riles, A. (2005). Introducing Discipline. *Political and Legal Anthropology Review* 28(2): 173–202.
- Jeffery, L., and Candeia, M. (2006). The Politics of Victimhood. *History and Anthropology* 17(4): 287–296.
- Jepson, P, Barua, M. and Buckingham, K. (2011). What is a conservation actor? *Conservation and Society* 9(3): 229–235.
- Jóhannesson, G., Ren, C., van der Duim, V.R. et al. (2014) Actor-network theory and tourism research: Approaches, implications and future opportunities. In: Widtfeld Meged, M., Blichfeldt, B.S., Hansen, L.E.A. and Hvass, K.A. (eds): *Tourism Methodologies-New Perspectives, Practices and Procedures*. Copenhagen. Copenhagen Business School Press, pp. 119-136.
- Jovanović, S. and Ivana, I. (2016). Infrastructure as important determinant of tourism development in the countries of Southeast Europe. *Ecoforum Journal* 5(1):288-294.
- Joyce, R.A. (2012). Life with things: archaeology and materiality. In: Shankland, D (Ed), *Archaeology and Anthropology: Past, present and future*. pp. 119 - 132.
- Kabananukye, K. (2011). Ethnic-Racial Minorities: Movement Towards Political Inclusion: The Case of the Batwa in Uganda. In H. Majamba (Ed.), *Towards a Rights- Sensitive East African Community The Case of Ethnic and Racial Minorities*. Kampala: Fountain Publishers, pp. 268–324.
- Kabano, P., Arinaitwe, J. and Robbins, M.M. (2014) A brief history of habituated gorillas in Bwindi Impenetrable National Park. *Gorilla Journal* 48: 7–10.
- Kajobe, R. (2007). Nesting biology of equatorial Afrotropical stingless bees (Apidae; Meliponini) in Bwindi Impenetrable National Park, Uganda. *Journal of Apicultural Research*, 46(4): 245–255.
- Kakuru, P. (2016). *Batwa Population Census Report*. Available at: <http://bwinditrust.org/wp-content/uploads/2019/01/BMCT-Batwa-Census-Report-2016.pdf>. (Accessed September 19, 2017).

- Kanwal, S., Rasheed, M.I., Pitafi, A.H., et al. (2020). Road and transport infrastructure development and community support for tourism: The role of perceived benefits, and community satisfaction. *Tourism Management* 77: 104014.
- Kawczynska, E. (2014). Batwa: the most marginalized people in Uganda? *Equal Times*. Available at: <https://www.equaltimes.org/batwa-the-most-marginalised-people?lang=en#.XHTvvMBKiUt>. (Accessed July 30, 2016).
- Kenrick, J., and Lewis, J. (2004). Indigenous peoples' rights and the politics of the term 'indigenous'. *Anthropology Today*, 20(2): 4–9.
- Kenricks, J. (2000). *The Batwa of South West Uganda: World Bank Policy on Indigenous Peoples and the Conservation of the Bwindi and Mgahinga National Parks*. Forest Peoples Programme and United Organisation for Batwa Development, 1-38.
- Khadaroo, J. and Seetanah, B. (2007). Transport infrastructure and tourism development. *Annals of Tourism Research* 34(4): 1021-1032.
- Kidd, C. (2014). *Bwindi Impenetrable National Park: The case of the Batwa*. World Heritage Sites and Indigenous Peoples' Rights 147.
- Kidd, Chr. (2008). *Local consequences. Development discourse and the Batwa of South West Uganda: representing the 'other': presenting the 'self'*. Glasgow.). Glasgow Thesis Service.
- Kideghesho, J. R. (2008). Co-existence between the traditional societies and wildlife in western Serengeti, Tanzania: its relevancy in contemporary wildlife conservation efforts. *Biodiversity Conservation*, 17(8): 1861–1881.
- Bonine, K., Burgues Arrea, I., Gribi, N. et al. (2016.). *Biodiversity Understanding in Infrastructure and Landscape Development*. Conservation Strategy Fund. Washington DC. Available at: <https://biodiversitylinks.org/library/resources/final-report-biodiversity-understanding-in-infrastructure-and-landscape-development-pdf/view>. (accessed August 30, 2017).
- Knight, J. (2009). Making wildlife viewable: Habituation and attraction. *Society & Animals* 17(2): 167–184.
- Kumar, R. (2014.) *Research Methodology: a step by step guide for beginners*. London: Sage Publications Ltd.
- Latour, B. (2005). *Reassembling the Social. An Introduction to Actor-Network-Theory*. New York: Oxford University Press.
- Latour, B. (2014). Agency at the Time of the Anthropocene. *New Literary History*, 45 (1), 1–18.
- Laudati, A.A. (2010a). Ecotourism: The modern predator? Implications of gorilla tourism on local livelihoods in Bwindi Impenetrable National Park, Uganda. *Environment and Planning D: Society and Space* 28: 726–743.
- Laudati, A.A. (2010b). The encroaching forest: Struggles over land and resources on the boundary of Bwindi Impenetrable National Park, Uganda. *Society and Natural Resources* 23(8): 776–789.
- Law, J. (2009). Actor network theory and material semiotics. In: Turner B.S. (ed) *The New Blackwell Companion to Social theory*. London: Blackwell Publishing Limited, pp.141–158.
- Law, J. and Mol, A. (2008). The actor-enacted: Cumbrian sheep in 2001. In: Knappett, C and Malafouris, L (Eds). *Material Agency: Towards a Non-Anthropocentric Approach*. New York: Springer pp. 57-77.

- Law, J. and Mol, A. (2020). Words to think with: An introduction. *The Sociological Review* 68(2): 263-282.
- Law, J. and Singleton, V. (2005). Object lessons. *Organization* 12(3): 331-355.
- Law, J. and Urry, J. (2004). Enacting the social. *Economy and society* 33(3): 390-410.
- Law J. (1999). After ANT: complexity, naming and topology. ', in J. Law, J. and J. Hassard (eds), *Actor-network Theory and After*. Oxford: Blackwell, pp. 1–14 47: 1-14.
- Law J. (2000). On the subject of the object: Narrative, technology, and interpellation. *Configurations* 8(1): 1-29.
- Law J. (2004a) *After method: Mess in social science research*, London and New York. Routledge.
- Law J. (2004b) *Enacting Naturecultures: a View from STS*. Version of 24th February. Available at: <http://heterogeneities.net/publications/Law2004EnactingNaturecultures.pdf>. (Accessed March 27, 2019).
- Law J. (2015). What's wrong with a one-world world? *Distinktion: Scandinavian Journal of Social Theory* 16(1): 126-139.
- Law J. (2019). *Material semiotics*. Retrieved from: [www.heterogeneities.net/publications/Law2019Material Semiotics. Pdf](http://www.heterogeneities.net/publications/Law2019MaterialSemiotics.Pdf) (Accessed March 27, 2019)..
- Law, J. (2008). On Sociology and STS. *The Sociological Review*, 56(4), 623–649.
- Lew, A.A. (1991). Scenic roads and rural development in the US. *Tourism Recreation Research* 16(2): 23-30.
- Lewis, J. (2000). *The Batwa pygmies of the great lakes region*, (Vol. 209). London: Minority Rights Group International.
- Macfie, E.J. and Williamson, E.A. (2010). *Best practice guidelines for great ape tourism*. Gland: IUCN.
- Madden, F.M. (2008). The growing conflict between humans and wildlife: law and policy as contributing and mitigating factors. *Journal of International Wildlife Law & Policy* 11(2-3): 189-206.
- Martin, J.A. (2011). When sharks (don't) attack: Wild animal agency in historical narratives. *Environmental History* 16(3): 451–455.
- Mayberry, AL, Hovorka, AJ. and Evans, KE.(2017). Well-being impacts of human-elephant conflict in Khumaga, Botswana: Exploring visible and hidden dimensions. *Conservation and Society* 15(3): 280-291.
- Mbaiwa, J. E. (2016). Tourism development, dispossession and displacement of local communities in the Okavango Delta, Botswana. In J. Saarinen and S. K. Nepal (Eds.), *Political Ecology and Tourism* (pp. 193–206). London: Routledge.
- Mbaria, J. and Ogada, M. (2016). *The big conservation lie: the untold story of wildlife conservation in Kenya*. Auburn: Lens &Pens Publishing.
- McDonald-Madden E, Probert W.J., Hauser C.E., et al. (2010). Active adaptive conservation of threatened species in the face of uncertainty. *Ecological Applications* 20: 1476-1489.
- McKee, K. (2009). Post-Foucauldian governmentality: What does it offer critical social policy analysis? *Critical Social Policy* 29(3), 465–486.
- McManus, KF., Kelley, JL., Song, S., et al. (2015) Inference of gorilla demographic and selective history from whole-genome sequence data. *Molecular Biology and Evolution* 32(3): 600–612.

- Menzel, A. (2018). The perils of recognising local agency: a situational concept of agency and the case of victims of sexual violence and the Sierra Leone Truth and Reconciliation Commission (TRC). *Journal of International Relations and Development* 23, 584–606 (2020).
- Meskel, L. (2008). *Archaeologies of materiality*. London: John Wiley & Sons.
- MGLSD. (2006). Uganda National Culture Policy. In: MGLSD. (2011). *Social Development Sector Strategic Investment Plan* (SDIP 2) 2011/12 – 2015/16.
- Michael, M. (2016). *Actor-Network Theory: Trials, Trails and Translations*. Thousand Oaks: Sage.
- Middelveld, S., Van der Duim, V.R. and Lie, R. (2015). Reef Controversies: The Case of Wakatobi National Park, Indonesia In: G.T Jóhannesson, C. Ren and Van der Duim, V.R. (eds.) *Tourism Encounters and Controversies: Ontological Politics of Tourism Development*. Surrey: Ashgate, pp. 39-52.
- Mol, A. (1999). Ontological politics. A word and some questions. *The Sociological Review* 47(1): 74-89.
- Mol, A. (2002). *The Body Multiple: Ontology in Medical Practice*. Durham: Duke University Press.
- Mol, A. (2010). Actor-network theory: Sensitive terms and enduring tensions. *Kölner Zeitschrift für Soziologie und Sozialpsychologie. Sonderheft* 50: 253-269.
- Moncrieffe, J. M. (2008). Beneath the Categories: Power Relations and Inequalities in Uganda. In Michael Walton, M and Bebbington, AJ, et.al (Eds). *Institutional pathways to equity: addressing inequality traps*. Washington DC, World Bank Group. pp. 73–102.
- Morin, R. (2015). A conversation with Koko the gorilla. *The Atlantic*, 28 August 2015.
- Mosse, D. (2005). *Cultivating Development: An Ethnography of Aid Policy and Practice*. London: Pluto Press.
- MTWA. (2015) *Uganda Tourism Policy 2015*. Kampala: MTWA
- Mugenyi O. (2006). *Gifted by Nature, Dispossessed by Parliament: The Plight of Mpungu Community in Kanungu District. Advocates Coalition for Development and Environment (ACODE) policy briefing paper #16*, Available at: <https://www.africaportal.org/publications/gifted-by-nature-dispossessed-by-parliament-the-plight-of-mpungu-community-in-kanungu-district/> (Accessed October 18, 2019).
- Mukasa, N. (2014). The Batwa indigenous people of Uganda and their traditional forest land: Eviction, non-collaboration and unfulfilled needs. *Indigenous Policy Journal* 24 (4): 1-16.
- Mukasa, N. (2017). The Batwa indigenous people in Uganda and their detachment from forest livelihood: Land eviction and social plight. *Deusto Journal of Human Rights* 10: 71-84.
- Murdoch, J. (2006.) *Post-structuralist geography: a guide to relational space*, London: Sage.
- Murphy, P.E. (2012). *Tourism: A community approach*, London and New York: Routledge.
- Musinguzi, B. (2016). Minority groups struggle for land, representation. *The Daily Monitor*, 15 May, 2016.
- Mutebi, B. (2016). Dr Kellermann sold his belongings to take care of the Batwa. *The Daily Monitor*, 17 April, 2016.
- Muyambi, F. (2006). *Assessment of impact of tourism on the behaviors of mountain gorillas in Bwindi Impenetrable National Park*. MSc (Unpublished Thesis). , Kampala: Makerere University.
- Naidoo, R., Gerkey, D., Hole, D., et al. (2019) Evaluating the impacts of protected areas on human well-being across the developing world. *Science Advances* 5(4): eaav3006 Supplementary.

- Namara, A. (2006). From paternalism to real partnership with local communities? Experiences from Bwindi Impenetrable National Park (Uganda). *Africa Development* 31(2), 37–66.
- Nance, S. (2013). *Entertaining Elephants: Animal Agency and the Business of the American Circus*. Baltimore: JHU Press.
- Nelson, R.H. (2003). Environmental Colonialism: "Saving" Africa from Africans. *The Independent Review* 8: 65-86.
- Nkurunungi, J.B. (2013) *Assessment of the impacts of mountain gorilla habituation and tourism on their sustainable conservation International Gorilla Conservation Program*. Kampala: Unpublished Consultancy Report.
- Nuwamanya, E., Infield, M., Ajilong, S., Twinamatsiko, M., Ninshaba, C., Kyasiimire, S., and Mbambu, L. (2015). *Integrating Batwa cultural values into national parks management in Uganda*. Available at: <http://www.darwininitiative.org.uk/documents/19019/23643/19-019%20FR%20-%20edited.pdf>. (Accessed December 12, 2019).
- Nzita, R. (1992). *A history of the Batwa in Kisoro District: 1900-1990*. (MA). Kampala: Makerere University.
- Ogaram, D., Victorine R, Hunter K, et al. (1995). *Environment Impact Assessment Report of the proposed Buhoma-Nteko Road thorough Bwindi Impenetrable National Park*. Grant Management Unit (USAID) & Ministry of Natural Resources
- Oliver, K. (2009). *Animal Lessons: How They Teach Us to Be Human*. New York: Columbia University Press.
- Olupot, W., Barigiyira, R, and Chapman, CA. (2009) The status of anthropogenic threat at the people-park interface of Bwindi Impenetrable National Park, Uganda. *Environmental Conservation* 36(1):41–50.
- Organ, J.F., Decker, D.J., Riley, S.J. et al. (2012). Adaptive management in wildlife conservation. In: *The Wildlife Techniques Manual*, 7th ed., N. J. Silvy Ed. (Baltimore: John Hopkins University Press, 2012), 43–54.
- Palmer, C. (2002). Taming the wild profusion of things? A study of Foucault, power and animals. *Environmental Ethics* 23: 339–358.
- Patwal, A. (2013). Sustainable Tourism Infrastructure Planning: A GIS Based Approach. *International Journal of Hospitality & Tourism Systems* 6(1): 45-52
- Pellis, A. (2019). *Conflicts forever: Understanding the role of conflicts in conservation tourism*. (Doctoral thesis). , Wageningen: Wageningen University
- Perry, G. H., Foll, M., Grenier, J.-C., Patin, E., Nedelec, Y., Pacis, A., Barakatt, M., Gravel, S., Zhou, X., Nsoby, S. L., Excoffier, L., Quintana-Murci, L., Dominy, N. J. and Barreiro, L. B. (2014). Adaptive, convergent origins of the pygmy phenotype in African rainforest hunter-gatherers. *Proceedings of the National Academy of Sciences*, 111(35), E3596–E3603.
- Pinch, T. and Swedberg, R. (2008). *Living in a material world: economic sociology meets science and technology studies*. Boston: MIT Press.
- Pitman, C. (1935.) The Gorillas of the Kayonsa Region, Western Kigezi, SW, Uganda. *Proceedings of the Zoological Society of London*. Wiley Online Library, 477-494.
- Puig de la Bellacasa, M.P. (2017). *Matters of Care: Speculative Ethics in More Than Human Worlds*. Minneapolis: University of Minnesota Press.

- Rap, E. and Wester, P. (2017). Governing the water user: experiences from Mexico. *Journal of Environmental Policy & Planning* 19(3), 293–307.
- Reisinger Y, Michael, N. and Hayes, J.P. (2019). Destination competitiveness from a tourist perspective: A case of the United Arab Emirates. *International Journal of Tourism Research* 21: 259–279.
- Ren, C., Van der Duim, V.R. and Jóhannesson, G.T. (2015) Postscript: Making headways, expanding the field and slowing down. In: Jóhannesson, GT, C. Ren and Van der Duim, V.R (eds.) *Tourism Encounters and Controversies: Ontological Politics of Tourism Development*. Surrey. Ashgate pp. 239–244.
- Ren, C. (2011). Non-human agency, radical ontology and tourism realities. *Annals of Tourism Research*, 38(3), 858–881.
- Rinfret, S. (2009). Controlling animals: Power, Foucault, and species management. *Society and Natural Resources* 22(6): 571–578.
- Robbins, M.M., and Robbins, A.M. (2018). Variation in the social organization of gorillas: Life history and socioecological perspectives. *Evolutionary Anthropology: Issues, News, and Reviews* 27(5): 218–233.
- Robbins, M.M, Akantorana, M., Arinaitwe, J. et al. (2019). Dispersal and reproductive careers of male mountain gorillas in Bwindi Impenetrable National Park, Uganda. *Primates* 60: 133–142.
- Robbins, M.M., Gray, M., Fawcett, K.A., et al. (2011). Extreme conservation leads to recovery of the Virunga mountain gorillas. *PLoS One* 6(6): e19788.
- Roe, D. and Elliott, J. (2006). Pro-poor conservation: the elusive win-win for conservation and poverty reduction. *Policy matters*, 14(03). Available at: <https://pubs.iied.org/sites/default/files/pdfs/migrate/G02269.pdf>? (Accessed November 2, 2020).
- Ruan, Y. and Xiao, J. (2003). Seeking a win-win resolution for heritage preservation and tourism development. *City Planning Review*, 27(6): 86–90.
- Ruddick, S.M. (2017.) Rethinking the subject, reimagining worlds. *Dialogues in Human Geography* 7(2): 119–139.
- Rutherford, S. (2018).The Anthropocene’s animal? Coywolves as feral co-travelers. *Environment and Planning E: Nature and Space* 1(1-2): 206–223.
- Sandbrook, C. and Adams, W.M. (2012). Accessing the impenetrable: The nature and distribution of tourism benefits at a Ugandan National Park. *Society & Natural Resources* 25(9): 915–932.
- Sandbrook, C. and Semple, S. (2006). The rules and the reality of mountain gorilla *Gorilla beringei beringei* tracking: How close do tourists get? *Oryx* 40(4): 428–433.
- Sandbrook, C.G. (2010). Putting leakage in its place: The significance of retained tourism revenue in the local context in rural Uganda. *Journal of International Development* 22(1): 124–136.
- Sayes, E. (2014). Actor–Network Theory and methodology: Just what does it mean to say that nonhumans have agency? *Social Studies of Science* 44(1): 134–149.
- Scoon, T. (2016). *Fife Today: Kirkcaldy gran to return to Uganda as volunteer*. Fife Free Press October 27, 2016.
- Seiler, N. and Robbins, M.M. (2016). Factors influencing ranging on community land and crop raiding by mountain gorillas. *Animal Conservation* 19(2): 176–188.

- Seiler, N., Boesch, C., Mundry, R. et al. (2017). Space partitioning in wild, non-territorial mountain gorillas: The impact of food and neighbours. *Royal Society Open Science* 4(11): 170720.
- Semajeri, G. (2018). *Minutes of Batwa meeting with Prime Minister and technical personnel at March, 27*. Kampala: the Prime Minister's office.
- Sengupta, K., Buncombe, A., and McCarthy, M. (1999). Gorilla trail that strayed into Africa's violent heart.(kidnapping of tourists in Uganda). *The Independent*, March 2, 1999.
- Spenceley, A. (2012). *Responsible tourism: Critical issues for conservation and development*. London: Routledge.
- Sheller, M. (2014). The new mobilities paradigm for a live sociology. *Current Sociology* 62(6): 789-811.
- Shimoyamada S. (2019). Hybrid production of gardens: an actor–network analysis of heterogeneous power relations. *Tourism Geographies* 21(2): 195-213.
- Simmons, D.G. (1994). Community participation in tourism planning. *Tourism Management* 15: 98-108.
- Simoni V. (2012). Tourism materialities: enacting cigars in touristic Cuba: Valerio Simoni. In: Van der Duim, V.R., Ren, C. and Johannesson, G.T.. *Actor-Network Theory and Tourism*. London: Routledge, pp.74-94.
- Srinivasan, K. (2014). Caring for the collective: Biopower and agential subjectification in wildlife conservation. *Environment and Planning D: Society and Space* 32(3): 501–517.
- Stafford, C., and Garcia, L. (2016, August 18, 2016). *Discrimination and the forgotten pygmy tribes of Uganda: Tourism is bringing new wealth to East Africa, but the former “keepers of the forest” are left behind, homeless and ill-equipped to deal with the 21st century*. Available at: <https://lauragrb.atavist.com/batwafinal>. (Accessed October 17, 2017).
- Steve (2014). *Fly to Bwindi gorillas, don't drive!* . Available at: https://www.tripadvisor.com.au/ShowUserReviews-g3685413-d1908641-r194253145-Bwindi_Impenetrable_Forest-Western_Region.html. (accessed December 12, 2016).
- Steward. H. (2009). Animal agency. *Inquiry* 52(3): 217–231.
- Swanson, H.A., Lien, M.E. and Ween, G.B. (2018). *Domestication gone wild: politics and practices of multispecies relations*. Durham: Duke University Press.
- Swart, S. (2010). *Riding High: Horses, Humans and History in South Africa*. New York: New York University Press.
- Tajuba, P. (2015). Beyond gorillas, other wonders in Bwindi park. *The Daily Monitor*, November 6, 2015.
- Taylor, A.B. and Goldsmith, M.L. (2002). *Gorilla Biology: A Multidisciplinary Perspective*. Cambridge: Cambridge University Press.
- Than, K. (2012). Gorilla youngsters seen dismantling poachers traps – A first. *National Geographic Online*. Available at: <http://news.nationalgeographic.com/news/2012/07/120719-young-gorillasjuveniletraps-snares-rwanda-science-fossey/> (Accessed November 20, 2019).
- Tomassini, L., Font, X., and Thomas, R. (2019). The case for linguistic narrative analysis, illustrated studying small firms in tourism. *Tourism Geographies* 23(1-2): 344-359.
- Trenchard, T., and Marrier-d'Unienville, A. (2016). *The dark side of Uganda's gorilla tourism industry*. BBC News Available at: <http://www.bbc.com/news/world-africa-37034248>. (Accessed December 2, 2016).

- Tumushabe, G., and Musiime, E. (2006). *Living on the margins of life: the plight of the Batwa communities of South Western Uganda*. ACODE Policy series, No. 17. Available at : https://www.acode-u.org/Files/Publications/PRS_17.pdf. (Accessed September 23, 2019).
- Tumusiime, D.M. and Svarstad, H. (2011). *A local counter-narrative on the conservation of mountain gorillas*. Forum for Development Studies. Boca Raton: Taylor & Francis, pp.239–265.
- Tumusiime, D.M. and Sjaastad, E. (2014). Conservation and development: Justice, inequality, and attitudes around Bwindi Impenetrable National Park. *Journal of Development Studies* 50(2): 204–225.
- Tumusiime, D.M., Bitariho, R. and Sandbrook, C. (2018). Bwindi Impenetrable National Park: A celebrity site for integrated conservation and development in Uganda. In: Sandbrook C, Cavanagh CJ and Tumusiime DM (eds) *Conservation and Development in Uganda*. Boca Raton: Taylor & Francis., 61-84.
- Tumusiime, D. M. and Vedeld, P. (2012). False promise or false premise? Using tourism revenue sharing to promote conservation and poverty reduction in Uganda. *Conservation and society*, 10(1), 15-28.
- Turyatunga, E. (2010). Social exclusion, marginalization and the threat of extinction of ethnic minorities: a case of the Batwa Community in Uganda. *OIDA International Journal of Sustainable Development*, 2(3): pp. 57-64,
- Uganda Bureau of Statistics (2016). *The National Population and Housing Census 2014 - Main report*. Kampala.
- Uganda Wildlife Authority (2014). *Bwindi Impenetrable National Park: General Management Plan 2014 – 2024*. Kampala.
- Uganda Wildlife Authority (1995). *Bwindi Impenetrable National Park, General management Plan 1995-1999*. Kampala
- UNEP-WCMC (2011). *Bwindi Impenetrable National Park Uganda. Protected Areas and World Heritage*. United Nations Environment Program. Retrieved from: <http://www.unep-wcmc.org/medialibrary/2011/06/28/1f6619d0/Bwindi.pdf>
- UOBDU (2017). United Organisation for Batwa Development in Uganda. Retrieved from: <https://uobdu.wordpress.com/>.
- UPCLG (2013). *POLICY MEMO: Bwindi General Management – 2013 to 2023 planning process*. UK: Uganda-Poverty and Conservation Learning Group.
- Urry, J. (2002). *The Tourist Gaze*. Thousand Oaks: Sage.
- Van Assche, K., Beunen, R., and Duineveld, M. (2012). Performing success and failure in governance: Dutch planning experiences. *Public Administration*, 90(3), 567-581.
- Van Assche, K., Duineveld, M. and Beunen, R. (2014). Power and contingency in planning. *Environment and Planning A*, 46(10), 2385–2400.
- Van der Duim, V.R., Ren, C. and Jóhannesson, G.T. (2013) Ordering, materiality and multiplicity: Enacting ANT in Tourism. *Tourist Studies* 13(1): 3-20..
- Van der Duim, V.R., Ampumuza, Chr. and Ahebwa, W.M. (2014). Gorilla Tourism in Bwindi Impenetrable National Park, Uganda: An Actor-Network Perspective. *Society & Natural Resources*, 27(6), 588–601.
- Van Dooren, T. (2014). *Flight Ways: Life and Loss at the Edge of Extinction*. New York: Columbia University Press.

- Venturini, T. (2010). Diving in magma: how to explore controversies with actor-network theory. *Public Understanding of Science* 19(3): 258-273.
- Watson, J.E, Dudley, N., Segan, D.B. et al. (2014). The performance and potential of protected areas. *Nature* 515: 67-73.
- Weis, B. and Messerli, H. (2012). *Uganda tourism sector situational assessment: Tourism reawakening*. Washington: World Bank.
- Wild, R. and Mutebi, J. (1996). *Conservation through community use of plant resources*. People and Plants working paper 5. Division of Ecological Sciences, UNESCO, Paris, France.
- Williamson, E.A. and Feistner, A.T. (2003). Habituating primates: Processes, techniques, variables and ethics. In: Curtis, D.J. and Setchell, J.M. (eds) *Field and Laboratory Methods in Primatology: A Practical Guide*. Cambridge: Cambridge University Press, pp.25–39.
- Womakuyu, F. and Sejengo, E. (2010). Dutch Boy On a Mission to Rescue the Forgotten Tribe. *Newvision*. July 27, 2010.
- Woodford, M.H, Butynski, T.M. and Karesh, W.B. (2002) Habituating the great apes: the disease risks. *Oryx* 36(2): 153-160.
- World Bank (2017). *International bank for reconstruction and development project paper on a proposed additional grant in the amount of US\$3.75 million to the republic of Uganda from the forest carbon partnership facility for additional REDD+ readiness preparation support*, September 19, 2017. Washington: World Bank
- Young, T. (2018). *Noble savages are a fallacy, noble actions a necessity*. i-Independent Print Ltd, p. 17.
- Zaninka P. (2001) .*The impact of (forest) nature conservation on indigenous peoples; the Batwa of south-western Uganda: a case study of the Mgahinga and Bwindi Impenetrable Forest Conservation Trust*. Forest Peoples Programme: Available at: <https://www.forestpeoples.org/sites/default/files/publication/2010/10/ugandaeng.pdf> (Accessed March 3, 2016).

Blogs and newspaper articles

- Airkenya, (2013, June 20, 2013). *A bit about Bwindi*. Available at: <http://www.ndegenews.com/2013/06/a-bit-about-bwindi/> (Accessed January 16, 2017).
- Coyle, J. (2002, Sunday, June 2, 2002). Close encounters of the furred kind. *The Guardian*. Available at: <https://www.theguardian.com/travel/2002/jun/02/uganda.wildlifeholidays.observerscapessection> (Accessed March 12, 2017)
- Crabbe, D. (2011, September 9,). *Voyeur in the (Bwindi) Park*. Available at <https://lawyerchick92blog.com/2011/10/22/voyeur-in-the-bwindi-park/>(Accessed May 3, 2017).
- Kato, J. (2016, Monday). President Museveni orders diversion of road funds to help hunger victims. *Daily Monitor*. Available at: <http://www.monitor.co.ug/News/National/President-Museveni-orders-diversion-road-funds/688334-3483366-n4718yz/index.html> (Accessed December 12, 2017).

- Mafabi, D. (2017). Slow progress on tourism road construction crippling the sector. *Daily Monitor*. November 26, 2017. Available at: <http://www.monitor.co.ug/artsculture/Travel/Slow-progress-on-tourism-road-construction-crippling-the-sector/691238-4201880-7rtI7t/index.html>, (Accessed January 10, 2018).
- Behm-Masozera, A. B. (2014). *Pave the Impenetrable? Exploring the costs and benefits of road improvements in and near Bwindi*. Available at: igcp.org/blog/pave-the-impenetrable/ (Accessed August 20, 2015).
- Monitor team. (2015). Vote hunt: The kneeling, car pushing and self-abduction. *Daily Monitor*. November 16, 2015. Available at: <https://www.monitor.co.ug/Elections/Vote-hunt--The-kneeling--car-pushing-and-self-abduction/2787154-2958614-31mcpi/index.html> (Accessed October 20, 2017).
- Red Pepper. (2016). Kanungu locals to demonstrate over poor roads. *Red Pepper*. May 5, 2016. Available at: <https://redpepper.co.ug/kanungu-locals-demonstrate-over-poor-roads/> (Accessed October 29, 2017).
- NRM Media. (2016). *Govt to construct Ikumba - Butogota road to promote tourism in Kigezi*. Available at: <https://www.nrm.ug/media/govt-construct-ikumba-butogota-road-promote-tourism-kigezi> (Accessed September 27, 2017).
- Nsereko, N. (2014). *Revision of Uganda's Wildlife Policy*. Available at: <http://www.ugandawildlife.org/news-a-updates-2/uwa-news/item/341-wildlife-policy-to-be-revised>. (Accessed July 30, 2018).
- Sher, A. (2006). A star turn on silverback mountain. *The Sunday Times*. February 26, 2006. Available at: <https://www.thetimes.co.uk/article/a-star-turn-on-silverback-mountain-8msds6ckh3k> (Accessed July 30, 2018).
- Steele, P. (2017). *Uganda-the road to Bwindi*. Available at: <https://www.baldhiker.com/2017/09/20/uganda-the-road-to-bwindi/> (Accessed November 24, 2016).
- Tabaruka, A. (2013). Kanungu, Kisoro district leaders want a road through Bwindi. *Daily Monitor*, December 25, 2013.
- TripAdvisor. (2013, September 3,). *Unique hotel with million dollar views*. Available at: https://en.tripadvisor.com.hk/ShowUserReviews-g319722-d4782994-r184134734-Chameleon_Hill_Lodge_Bwindi_Bwindi_Impenetrable_National_Park_Western_Region.html
- TripAdvisor. (2014, September 9,). *Fly to Bwindi gorillas, don't drive!* Available at: https://www.tripadvisor.com/ShowUserReviews-g673829-d1908641-r194253145-Bwindi_Impenetrable_National_Park-Kabale_Western_Region.html
- Tumushabe, A., and Rumanzi, P. (2015,). Besigye condemns Museveni on roads. *Daily Monitor*., November 13, 2015. Wikström, C. (2007). Uganda Birding Trip, November 2007. Available at: <http://www.hyber.org/Uganda/uganda-2007.pdf> (Accessed October 18, 2016)
- Wilson, R. (2015). Travelling the bumpy road in East Africa. *The Queensland Times*. December 6, 2015

Minutes of meetings

KTCP, 2013-04-22: General stakeholders meeting (Meeting minutes)

KTCP, 2018-09-04: Kigezi stakeholders meeting with UNRA Executive Director at Rushaga, (Meeting minutes)

Summary

In this thesis I take a relational perspective as an alternative way of understanding the controversies around conservation, development and tourism at Bwindi Impenetrable National Park [Bwindi]. Drawing from my research, community outreach and a study of literature around Bwindi, I identified three key controversies: Batwa marginalisation, gorilla habituation and paving the Ruhija road at Bwindi Impenetrable National Park, Uganda. Over the years it has turned out that no single policy or management intervention has been able to completely put an end to the said issues. Moreover, even the best practice strategies often resulted in unforeseen consequences. For more than twenty years now, it is apparent that to continue asking similar questions implies getting locked into an endless cycle. It is therefore imperative that this cycle is broken, so as to open up to other possibilities by problematising the longstanding assumptions about the controversies as well as the nature or status of the subjects/objects of these controversies.

To open up other arguments or realities around controversies at Bwindi, my starting point is in line with Actor-network Theory (ANT), arguing that multiple realities (of controversies, tourism, conservation, people, animals, objects and so forth) arise from various heterogenous relations. As emphasised by ANT, reality becomes multiple and relational as various actors go about their daily practices. My research aim is to shed a different light on these controversies and interest readers, practitioners and policymakers in paying attention to multiple co-existing realities as a way of better understanding the controversies at Bwindi.

To do so, I broaden the questions from who or what causes the controversies to how these controversies arise and develop. The main research question of this PhD project therefore is: *what are the roles of human, animal and material agency in producing controversies at Bwindi?* To answer this question, I detail the complex relations between humans and non-humans, and how both humans, non-humans and related controversies become enacted in and through these relations as each actor goes about their daily practices/activities. These relations are illustrated in the three empirical cases: Batwa marginalisation (Chapter 2), gorilla habituation (Chapter 3), and paving the Ruhija road (Chapter 4).

Overall, I found that humans, animals and materiality are embroiled in myriad relations thereby producing multiple, yet co-existing realities, of themselves, their environment, and problems. In addition, these realities are not stable. They stabilise only temporarily and change along with changes in the networks within which they are entangled. This multiplicity and uncertainty make it difficult to resolve these debates because each attempt to resolve any aspect of the issues spurs a whole range of other challenges.

In Chapter 2, I use the case of the debates around Batwa marginalisation to illustrate the said complexity. Batwa once lived in Bwindi forest. When the Ugandan government declared this forest to be Bwindi National Park, the Batwa were prohibited from accessing the forest. Since then, there have been unending debates about the extent to which this eviction process has placed them at the margins of society. The marginalisation of the Batwa has been predominantly portrayed as an entirely external process. In this chapter I illustrate how Batwa marginalisation is produced by both Batwa and non-Batwa. The Batwa have internalised discourses about their marginalisation and take part in reproducing stories that place them into a position of marginalisation. This scenario is complicated by the idea that this particular reality has double reality effects, as sometimes this evokes empathy and financial flows while marginalising them at the same time. Furthermore, I illustrate how Batwa, a people portrayed discursively as passive, participate in relations that reduce their agency such as narrating their plight; while at the same time they actively engage in several other relations – such as research ecology and tourism entrepreneurs – where they are agential (act and cause difference). It is these multiple relations that make controversies thrive. But if harnessed, this double-thronged view of agency (in both active and passive relations) would be a good starting point to utilise Batwa's expertise and skills instead of focusing on 'helping' them by giving handouts.

The third chapter deals with debates around the habituation of mountain gorillas. The mountain gorillas at Bwindi were habituated so as to make them viewable by paying tourists. Scientific measures, such as keeping a 7-metre viewing distance, were put in place to ensure that these encounters are safe for the gorillas and visitors. Over time, some habituated gorillas not only have started to spend a considerable amount of time outside the forest, but also to move closer to tourists, which poses a health risk to the gorillas. On the other hand, it is believed that habituation has enabled veterinary intervention in case of illness and thus contributed to the increasing gorilla populations at Bwindi. Yet, some scholars argue that habituation is a form of control that produces docile bodies for the encounter value. This perspective places gorillas in an exploited position leaving no room for imagining any form of agency. In this chapter, I provide details of how gorillas actively shape and are shaped by relations among gorillas themselves, various groups of people and their environment. In addition, I show ways in which gorillas contribute to their own conservation, such as self-habituation, de-habituation, and re-habituation, removing snares themselves or pointing rangers to places where they have seen snares. These insights about gorillas' capabilities could be used to explore the range of possibilities of living together with gorillas instead of the often futile efforts to control their movements and keep them inside the forest.

In the fourth chapter, I provide a detailed examination of the debates about paving the Ruhija road. The Ruhija road has a section that goes through Bwindi forest. The dirt road becomes muddy and slippery during the rainy season and dusty during the dry season. In July

2012, the government published plans to pave this road. The publication gave rise to debates about whether it should be paved or not, and whether it should be re-routed outside the forest or not. I analyse the road as an object that becomes multiple as various actors interact with the road and enact different versions of it. Furthermore, I illustrate how the road pacified this conflict over paving and re-routing by no longer being slippery after it was fixed with rocks and laterites. In view of this, I conclude that by disrupting travel, the road found its way to budgets and political agendas, and by then pacifying the conflict, the Ruhija road co-produced the plans and policies. And, material agency also relates to particular contexts and people's opinions, making it more complicated than a matter of paving or not paving.

In the final chapter, I conclude this research by showing how controversies around gorilla tourism at Bwindi are produced and distributed through the multiple relations as actors go about their daily practices. In addition, I emphasise that both humans and non-humans play an important role in enacting and sustaining these controversies. In all the empirical chapters, I illustrate how human, animal and material agency is produced and distributed. Based on these agencies, and the multiple relations with unpredictable outcomes, I end this chapter discussing the implications of this relational perspective on controversies on conservation, development and tourism practices. I emphasise the importance of adaptive interventions that acknowledge and harness controversies as inherent in conservation and tourism processes.

I place this emphasis because all empirical chapters demonstrated that controversies not only highlighted the various facets of the problem, but also capabilities of non-conventional actors. For example, over time, the unresolved debates about Batwa have gone beyond questions of letting them back into the forest to issues of justice, equality, representation, partnerships, and co-existence. In the gorilla habituation case, the persistence of debates has broadened the problem from providing alternative income to governments and communities in support of conservation to health issues, gorilla adaptive behaviour, and the economy. And, when the Ruhija road could not be paved due to the contestations, it became clear that the problem was not entirely about paving. It was more about making the road drivable, ensuring safety, security and thinking through other engineering options. Finally, and most importantly, controversies expose, and also create fissures in a network, thereby creating room for innovations. In the three cases, innovations were visible in terms of co-creating research outputs and tourism products *with* instead of *for* the Batwa; gorillas and rangers collaborating to remove snares; and UNRA road engineers taking the disruptive character of the inferior chalky soil seriously, and working with laterites instead of paving.

Acknowledgements

I am indebted to many people who have contributed to the completion of this thesis. To say that 'it is ours, yet mine' is the most appropriate description of this PhD. Many thanks to the invisible minds that never appeared anywhere on the academic scene but played a fundamental role to my decision to go for it! My late father Mr. H.P. Katambaki, my mother Irene Tukahirwa Katambaki, and my sisters and brothers. Daddy, you are no longer with us but I know you are always there, somewhere. Agui, you too are somewhere beyond this world, but you were another father in my life and when Father rested, you took it upon yourself to continue encouraging me to further my education. Daddy Godfrey Rwakitarate, thank you for the spiritual nurturing, encouragement and support, continue to rest well. Tata Mweteise, you know the great role you played in my professional advancement. I am forever grateful.

And my sincere gratitude goes to my academic network at Kabale and Wageningen University. Prof. Joy C. Kwesiga, words cannot describe your contribution to my entire career right from teaching me how to knock at a door, staple papers right, spell certain words et cetera, forwarding all MSc and PhD links that came into your inbox and always encouraging me to keep applying. Thank you for arranging the transfer of the funds that I needed to extend my stay after taking the short course so that I could sketch out my PhD proposal. Prof. Allen Babugura, I appreciate your academic counselling whenever I needed it. And a host of WUR academics who made my dream come true. I am hugely indebted to Rene, my Promotor. You not only kept in touch after my MSc., but also immediately accepted my proposal to extend my stay and write my PhD concept. Many thanks for your patient guidance, parental care, counselling and encouragement at all times. Thanks to Hamza Muzaini for the initial insights regarding this project. I say thank you to Martijn, my co-promotor, for the many discussions – face to face and online – for your flexibility that kept me sane in the most difficult moments of this undertaking. Thanks to Martijn for the meetings and challenging me to be bold and firm. I benefited greatly from your wisdom and theorising and lay-out techniques. No question that I will keep practicing that even after my PhD. Clemens, I cannot explain how, but your guidance made writing and publishing the third chapter seem very feasible. I am grateful for your flexibility. Responding to my sometimes very late-night emails made me feel so relaxed, because of the assurance that I could wake up and write down insights that popped up at such awkward hours. I thank you!

And finally, thank you to my academic support network. Doortje Wartena, you too rested 3 years into this PhD, but I will always be grateful to you for making my accommodation arrangements in Wageningen possible; for the days you stayed awake proofreading my proposal, and sending me literature on qualitative research methods. Many thanks to Cora Van Oosten and Ilse Heinemann, you encouraged me to go ahead and write my PhD proposal

after that wonderful landscape governance course. Maria van Soelen, you assisted me to have my ticket changed so that I could stay on and sketch my PhD proposal. Many thanks to Arjaan and Sas. You know that if I decide to put all my acknowledgement in writing, it will be another thesis on its own. You know how this whole PhD thing started in your house!! Beyond that, Sas, you gave me a copy of the keys to your house so that I could always come and rest whenever I needed to feel at home. Thanks to Yuriaan, Louis and Pia – a visit to your home always brought the warmth in winters and refreshed my soul with the fun, teas, walks et cetera. I always felt support from each one of you, the GEO family in many ways; from the warm smiles in the corridors, questions about my progress, to the feedback during landscape conversations, GEO meetings, and PhD days. So I thank Claudio, Tabitha, Nelly, Arjaan, Alexandra, Maarten, Said, Yulia, Nowella, Trista, Eugenie, Rodrigo and later, Maurice, Claudia, Robbith and Ismail. I benefitted greatly from the landscape conversations, PhD days and feedback on the ‘tip and top cards’. Meghann and Karin, your detailed feedback on my first presentation – just a few days after starting the PhD – gave me the confidence that I needed at that time. Thank you. I also benefited from the feedback I received from CSPA activities – and to this, I thank Lisa for the discussions we had, and for sharing your thoughts about the Batwa case; Stasja for your feedback on my initial version of the Batwa article. Jean Tee, you did a great job editing the language of this thesis. Keen, thank you so much for always arranging my travels. Maria thanks for making the financial arrangements I needed for this project. Many thanks to all my research participants for your time and putting up with my numerous phone calls and emails to verify the data even after I had left the field. And for all these networks, encounters and richness, I give all the glory to God.

About the Author

Christine Ampumuza was born in Mparo, Rukiga District in southwestern Uganda. She obtained her Bachelor of Tourism degree from Makerere University in 2002. Her Bachelor thesis focused on tourists' cognitive behaviour and cultural tourism in Uganda. After her Bachelor degree, she joined Kabale University as a teaching assistant at the department of Tourism and Hospitality. In 2007, Christine enrolled for the Master in Leisure, Tourism and Environment (MLE) at Wageningen University. Her MSc thesis entitled: *Multilevel partnerships in Uganda's gorilla tourism: power, processes and poverty, the case of Bwindi Impenetrable National Park*, focused on the translation processes that established and maintain Uganda's gorilla tourism.

Upon completion of her MSc, and using insights from Actor-network Theory (ANT), an analytical framework she used for her thesis, Christine joined and played a key role in establishment of the Kigezi Tourism Multi-stakeholder platform where she still serves on the capacity building committee. Christine remains actively engaged with the tourism scholarship through the ATLAS Africa conferences. In addition, she attended short courses in transformative methodologies; climate adaptation in agricultural and natural resource management, and landscape governance. These social and academic engagements inspired her to start a PhD at the Cultural Geography Group, Wageningen University in April 2016.

List of publications

Ampumuza, C., and Driessen, C. (2020). Gorilla habituation and the role of animal agency in conservation and tourism development at Bwindi, South western Uganda. *Environment and Planning E. 0(0)*. 1-21. <https://doi.org/10.1177/2514848620966502>.

Ampumuza, C., Duineveld, M. and van der Duim, V.R. (2020). The most marginalized people in Uganda? Alternative realities of Batwa at Bwindi Impenetrable National Park. *World Development Perspectives*, 20, 100267. <https://doi.org/10.1016/j.wdp.2020.100267>

Ampumuza, C., Duineveld, M. and Van der Duim, V.R. (2021). Material pacification: how a conflict over paving Uganda's tourism road got accidentally resolved. Submitted to *Tourism Planning and Development*

Van der Duim, V.R., Ampumuza, C., and Ahebwa, W. M. (2014). Gorilla tourism in Bwindi Impenetrable National Park, Uganda: an actor-network perspective. *Society & Natural Resources*, 27(6), 588-601.



Name of the learning activity	Department/Institute	Year	ECTS*
A) Project related competences			
Proposal Writing	WUR	2016	6
Advanced Social Theory, CPT 55306	WUR	2016	6
Summer school, Political Ecologies of Conflict, Capitalism and Contestation (PE-3C)	WASS	2016	3
Research Methodology: from topic to proposal	RME	2016	4
B) General research related competences			
WASS Introduction course	WASS	2016	1
Essentials of Scientific Writing and presenting		2017	1.2
Information Literacy With Endnote	WGS	2017	0.6
CSPS/WIMEK Writing retreat	CSPS	2019	1
'Disruptive methodologies? An Actor-network theory perspective on Batwa-conservation and tourism controversies at Bwindi Impenetrable National Park, South Western Uganda'	Association for Tourism and Leisure Education and Research (ATLAS Africa) conference, Kampala	2019	1
'Conservation controversies: co- enacting Gorillascapes at Bwindi Impenetrable National Park, S.W Uganda'	ITFC-UWA Annual Research Dissemination and Information Sharing Workshop	2017	1
'Tourism roads: co-enacting controversies at Bwindi Impenetrable National Park, S.W. Uganda'	Association for Tourism and Leisure Education and Research (ATLAS Africa) conference, Eldoret	2017	1
'Conservation or Infrastructure development? Beyond a political ecological perspective of the competing claims on the Bwindi forest'	Wageningen University and School of Oriental and African Studies (SOAS), University of London. POLLEN Conference, Wageningen	2016	1
PhD project presentations	GEO	2016-2019	1
C) Career related competences/personal development			
Guest lectures	Breda University of Applied Sciences & Wageningen University	2016, 2019	1
ACT project supervision and assessment	Education Project Services (WUR)	2019	3
Reviewing scientific manuscript	African Health Sciences Journal	2019	1
Total			32.8

*One credit according to ECTS is on average equivalent to 28 hours of study load

