

Destabilizing the Colonization of Indigenous Knowledge

In the Case of Biopiracy.

Liddy Scarlet Curbishley

Destabilizing the Colonization of Indigenous Knowledge
In the Case of Biopiracy.

Liddy Scarlet Curbishley
4236904

August 2015

Thesis submitted in partial fulfillment of the requirements for
the degree of Master of Humanities in Gender Studies at
Utrecht University

Mentor: Peta Hinton
Second Reader: Christine Quinan

This thesis is dedicated to the lecturers of Utrecht University's Gender Studies programme for their constant inspiration, to my mentor for her insight and motivation, and to my family and friends near and far you know who you are.

Abstract

It is the argument of this thesis that the appropriation of indigenous knowledges through acts of biopiracy colonizes the lives of indigenous peoples. This occurs through the subjugation of natural resources and those with the knowledge of them. The knowledge of indigenous peoples is inadequately valued and safeguarded, much like the lives and lands of indigenous peoples by the international community. The current discourse, perpetuated by politics, international relations, the media, and popular culture, frames indigenous peoples as both naturalized and feminized, and this Subject construction sustains existing oppression. This subjugation will be explored through a critical discourse analysis of the United National Declaration on Indigenous peoples, US Patent Law and The Agreement on Trade-Related Aspects of Intellectual Property Rights. The lack of protection these pieces of legislation provide is exemplified by three cases of biopiracy in India – neem, basmati and turmeric –, where many patenting projects have been enacted by governments and multinational corporations from the Global North through means of evasion and disregard of national and international legislation. It will be argued that this process of knowledge transfer serves the Global North economically whilst simultaneously returning nothing to the community it originated from. This thesis will further argue that the patenting of natural resources for commercial use by the Global North denies indigenous knowledges and re-writes knowledge production. As the Global North looks increasingly towards the Global South for alternative knowledges, it is crucial that the constructed positioning of indigenous peoples as inferior natural beings, in comparison to the also constructed civilized scientific Subject of the Global North, be reassessed as a means to more adequately strengthening protection, enforcing rights and creating an egalitarian international society concerned with environmental protection.

<u>INTRODUCTION.....</u>	<u>9</u>
<u>CHAPTER ONE: LITERATURE REVIEW</u>	<u>14</u>
Binary Thinking: the Creation of the Other.....	14
Global North/Global South Relations.....	19
Colonial Knowledge Production.....	20
Modest Witness.....	22
Biopiracy as Internationally Sanctioned Appropriation	24
<u>CHAPTER TWO: THEORETICAL FRAMEWORK AND METHODOLOGY.....</u>	<u>26</u>
Postcolonial Ecofeminism	26
Re-presentation and Reflexivity	29
Critical Discourse Analysis.....	31
Textual Analysis	33
Discursive Practice.....	34
Social Practice.....	35
Feminist Critical Discourse Analysis.....	35
<u>CHAPTER THREE: ANALYSIS AND CASE STUDIES</u>	<u>37</u>
Textual Analysis	37
Discursive Practice.....	43
Social Practice.....	44
Case Studies	46
Case Study One: Neem	46
Case Study Two: Basmati.....	47
Case Study Three: Turmeric	49
<u>CHAPTER FOUR: DISCUSSION</u>	<u>51</u>
Elucidation	51
Countering Biopiracy.....	54
Reflection.....	56
<u>CONCLUSION.....</u>	<u>57</u>
<u>BIBLIOGRAPHY</u>	<u>60</u>
<u>APPENDIX</u>	<u>67</u>

“It appalls us that the West can desire, extract and claim ownership of our ways of knowing [...] and then simultaneously reject the people who created and developed those ideas and seek to deny them further opportunities to be creators of their own culture and own nations. It angers us when practices linked to the last century, [...] are still employed to dent the validity of indigenous peoples’ claim to existence, to land and territories, to the right of self-determination, to the survival of our languages and forms of cultural knowledge, to our natural resources and systems for living within our environments” (Smith, 2012: 30-31)

“The ultimate expression of the commercialization of science and the commodification of nature... life itself is being colonized” (Shiva, 1997: blurb)

Introduction

It can be argued that indigenous knowledges of biodiversity are facing colonization by multinational corporations and governments from the Global North in the form of biopiracy.¹ Biopiracy, “describes the means by which corporations from the industrialized nations claim ownership of, free ride on, or otherwise take unfair advantage of, the genetic resources and traditional knowledge and technologies of developing countries” (Calan cited in Bautista, 2007: 16). Vandana Shiva positions the appropriation of indigenous knowledges, as demonstrated through acts of biopiracy, as reinscribing and revitalizing colonialism (Shiva, cited in Mohanty, 2003: 232-233), seemingly directly impacting the lives of the indigenous peoples and further perpetuating a hierarchical world order. Through binary thinking, Subject construction, hierarchal knowledge production and oppressive Global North/Global South relations, acts of biopiracy are sanctioned. It is the central aim of this thesis to draw attention to issues surrounding the colonization of indigenous knowledges by examining cases of biopiracy; specifically the cases of neem, turmeric and basmati. This thesis will consider the effects this process has on the lived experiences of those involved and the reproduction of hierarchies, whereby the Global North’s dominant interpretation of who is worthy to produce

¹ Knowledge is pluralized at points in this thesis when I wish to signify the wide range of epistemological approaches, theoretical foundations, beliefs, ideals and views that account for a multitude of lived experiences.

knowledge and what constitutes knowledge is venerated, and the Global South is further disqualified as a base of knowledge production.

However, this thesis also proposes to contribute to these debates by suggesting interventions that not only serve to disrupt this hierarchy and explore how the language of protection enables exploitation, but also to argue for self-determination for the indigenous and natural Other and to make claims in support of environmental justice.² These suggested interventions will be delivered through a postcolonial³ eco-feminist perspective that takes issues of both the environment and the marginalization of certain Subjects into account.⁴ With this focus, this thesis will also demonstrate how a move towards a re-assessment of ‘nature’ and the constituted ‘natural Other’ can re-write our relationship with the ecological system as part of a global paradigm shift that benefits both the environment and those oppressed by capitalist patriarchy. This Subject constitution and constructed power relations are aided by the language used to discuss indigenous peoples and nature in legislation created by the United Nations and other institutional bodies, and examining this language and considering how discourse mobilizes ideology opens up space for change. Proposing a feminist ecological in response to issues such as environmental degradation, disregard, and disconnect is necessary if we are to work towards eradicating the patriarchal definitions that have been given to nature, woman and the Other. Furthermore, counter actions from the Global South through documenting indigenous knowledges and instrumentalizing the legislation to different political ends shows a critical response to biopiracy that destabilizes the construction of indigenous peoples as victims without the ability to utilize their own agency to represent their own knowledges. This deconstruction of Global North-centrism and the decolonization of knowledges will be explored by bringing a postcolonial eco-feminist perspective to these discussions.

Influenced by post-structuralism, and in accordance with critical discourse analysis, throughout this thesis specific linguistic choices were made.⁵ Here I will set out the justification and purpose behind these linguist choices. Biopiracy is viewed here as an act of

² The Other is a constructed identity, in this construction the perceived weaknesses or undesirable qualities of marginalized people are highlighted to fortify those in positions of power (Said, 1978). ‘Other’ is capitalized to show that this is a subject position.

³ The term postcolonial as opposed to post-colonial is used throughout this thesis to suggest that we are not living in a period beyond or after colonialism as neo-colonialism is still a defining feature in the international realm. For further discussion on the term post(-)colonial see Shohat, 1992 and Hall, 1996.

⁴ ‘Subject’ is also capitalized as it describes a subject position, be it in a position of power or subjugation.

⁵ Post-structuralist thought views language as constituting of reality. There is nothing outside of language, therefore it forms the basis of being and through its usage the social realm is constructed (Derrida, 1988).

colonization and neo-colonialism in action, rather than imperialism, this view is due to the subjugation that biopiracy enacts upon indigenous peoples both symbolically and materially.⁶ Indigenous peoples are colonized through acts of biopiracy as knowledges are appropriated and exploited and the maintenance of oppression is thrust upon them. Neo-colonialism is practiced through biopiracy in the actions of multinational corporations patenting and commodifying certain natural resources found in the Global South and therefore colonizing indigenous knowledges for economic gain without compensating the indigenous community in return. “The lives of indigenous peoples represent the unfinished business of decolonization” (Wilmer, 1993: 5) as their lives become increasingly encroached upon by multinational corporations looking to exploit natural resources, paternalistic governments unwilling to respect and protect their sovereignty and self-determination and a discourse that naturalizes and feminizes as it constructs indigenous Subjects. Postcolonial India was chosen as the space in which to investigate biopiracy due to its extensive colonial history, I wish to examine the replay of this through new globalised capitalist mechanisms such as patenting and intellectual property rights.

When discussing various global regions language is intimately tied to historical, economical, cultural and ideological connotations that effect discourse and meaning. Using terms such as *first* and *third* world is highly problematic as these terms reinforce existing hierarchies between the two. The terms *East* and *West* are also problematic as they homogenize constructed ideas of culture related to certain spaces, temporalities and modalities that do not benefit the deconstruction of binaries.⁷ Throughout this thesis, when such terms are italicized I do so to create a continual questioning of these terms and the discourse they help to perpetuate. In this thesis the Global North is used to discuss economic and discursive power, The Global South herein represents developing nations who share the common features of limited economic resources, poor infrastructure and are viewed as less developed than other nations, many of which have experienced a history of colonization, decolonization, and continue to suffer from poverty, civil unrest, war, environmental degradation and resource depletion. However, the opposing of these two regions is problematic as it places culpability solely on the Global North and therefore casts the Global

⁶ Neo-colonialism describes geopolitical practices that control or influence countries without direct military action or indirect political control, but instead through capitalism, globalization and cultural imperialism (Satre, 2001). This thesis uses this definition of neo-colonialism but also proposed a reinvigoration of colonial practices of subjugation, exploitation and colonization of land, resources and knowledge.

⁷ *East* and *West* are also problematic terms as they refer to two homogenized sides of the world, grouping countries and regions that often have no corresponding characteristics across economics, politics and culture.

South and indigenous communities as the victim. Unfortunately, language currently available in both the literature engaged and my own working vocabulary does not provide any other alternative to convey meaning within this thesis. I am acutely aware of the positioning created and will address these issues throughout the thesis.

Discussing indigenous peoples brings further perils to academic work with regards to the politics of representation. My attempt to represent indigenous peoples in this thesis is substantiated by my own partial knowledge and experience, making it a subjective account of what I perceive to be problematic, and this may not reflect the ideas of indigenous peoples. The term 'indigenous' is problematic in itself as it homogenizes distinct lived experiences of diverse collectivities across the world. This thesis acknowledges the homogenizing connotations of this linguistic label and the potential it has to universalize indigenous experiences and subsequently re-inscribe *Western* discourse of the Other onto the lives of indigenous peoples and therefore further perpetuate a binary between *Western and indigenous peoples*.⁸ However, the term 'indigenous peoples' emerged as a way to internationalize the experiences of colonization and struggle felt by indigenous peoples globally (Wilmer, 1993). The 's' in peoples is used to recognize the plurality and self-determination of many different groups (Burger, 1990) and has allowed for a collective indigenous voice in the international arena.

The politics of representation opens up a series of considerations that are relevant to the type of argument pursued by this thesis. In order to draw the line of argument I have intended to draw, a homogenization of the Global North, Global South and indigenous peoples had to occur. This is not a play to essentialist ideas of these groupings but rather an employment of strategic essentialism (Spivak, 1987) as a political tool. Strategic essentialism temporarily mutes difference for the sake of achieving political goals, yet remains attentive to the damages of homogenizing identities (Spivak, 1987: 205). This method can be deployed to give indigenous peoples greater visibility and therefore increase access and ability to represent oneself. Through this action binaries are also made visible in order to aid their demystification and deconstruction.

In order to unfold this particular enquiry chapter one situates the colonization of indigenous knowledges in the academic context and creates a foundation for this investigation

⁸ By re-inscribing *Western* discourse on the Other, I am discussing the perpetuation of homogenized ideas of the exoticized, naturalized and feminized Other which is present in *Western* literature, art and other discourse.

to depart from. Issues of binary thinking, knowledge production, colonial history and Global North - Global South relations are discussed. A postcolonial ecofeminist theoretical framework is utilized throughout this thesis in order to explore the domination of indigenous peoples and the environment whilst considering the complex ways in which representation and (neo-)colonization work to support each other, and this is explored in chapter two. Following on, the methodological approach taken to exemplify the arguments and discussions made so far is detailed, in which a critical discourse analysis will be applied to the legislation this thesis considers in relation to the colonization of indigenous knowledges. Chapter three spans the analysis and the case studies - which are used to show the manifestations of the discourse constructed and constructing the instance of biopiracy. The reflective discussion on the themes of this thesis and the research conducted is in chapter four where opportunities for change and transformation are also discussed. A postcolonial ecofeminist standpoint is drawn throughout to attend to the aims of this thesis; the colonization of indigenous knowledge and how this process can be unravelled from this perspective. Destabilizing the colonization of indigenous knowledge in the case of biopiracy is the explorative objective, however several sub questions will also be considered to expand the nuances of this investigation. I will question; what are the socio-political conditions that create the space for colonization of indigenous knowledges to occur? How do forms of exploitation work in the case of indigenous knowledge production in the process of corporations and governments from the Global North appropriating indigenous knowledge? Does this knowledge transfer destabilize the nature/culture binary? If so, how can we use this destabilization as a critique of Global North hegemony? In conclusion, I will discuss the opportunities for transformation and the effects this could have on both society and the environment should binary thinking, Subject construction and hierarchy be destabilized.

Chapter One: Literature Review

Binary Thinking: the Creation of the Other

Through acts of biopiracy we witness the plagiarism of centuries old, commonly shared indigenous knowledges of natural resources by dominating figures in the international capitalist order – multinational corporations and governments from the Global North backed by international legislation. There is a complex power nexus operating in this one way flow of knowledges and resources that involves the mobilization of several dynamics in the international arena, as well as mobilization on a representational level. At the foundation of this act of domination is binary thinking, which foregrounds the subjugation and denigration of natural resources and those with the knowledge of them. Various binary oppositions are mobilized to enable the colonization of indigenous knowledges, the following three are central to this act;

- Nature/Culture,
- Modern/Indigenous
- Global North/Global South.

These constructed binaries are strategically positioned against each other to support oppressive actions. The nature/culture binary represents the separation between that which is cast as nature – women, people of colour, animals and the environment, or the Other – and culture, which represents the disembodied rational masculine Subject (Grosz, 1994). The modern/indigenous binary attempts to depict two separated civilizations, the modern represents the Global North and the academic, scientific and cultural practices stemming from that space. Whereas the indigenous represents communities that have developed outside of the modernity framework and maintain spiritual and cultural traditional practices often closely associated with the environment. The Global North/Global South binary represents the geopolitical and economic disparity between polarized parts of the world. The Global North, with its economic and military might, is dominant in the international arena, whereas the Global South is weakened through systemic poverty and war. Binary thought has been critiqued for creating the grounds for centeredness, “it provides the cultural grounding for class-centred hegemony, for male-centeredness, Eurocenteredness and ethnocenteredness, and for human-centeredness” (Plumwood, 1993: 55). Greta Gaard charges *Western* culture as being characterized by normative dualisms, valuing hierarchical thinking and driven by a logic of

domination as its ideological framework (Gaard, 2004: 22). Jacques Derrida supports this position and states that all meaning in the *West* is constructed in terms of binary opposition, where one term governs the other, creating a violent hierarchy (Derrida, 1992: 41). The instilment of hierarchal dualisms serves one side of the binary; this positioning creates superiority over the subjugated side of the binary. However, this is not reducible to individual actors, those with privilege are often unaware of the freedom it creates. As Foucault states we all participate in creating symbolic binary meaning that subjectivizes us and subliminally grants a certain agency (1990).

Val Plumwood describes this instilment as the logical structure of dualisms which are a:

“Relation of separation and domination inscribed and naturalised in culture and characterised by radical exclusion, distancing and opposition between orders constructed as systematically higher and lower, as inferior and superior, as ruler and ruled, which treats the division as part of the natures of beings constructed not merely as different but as belonging to radically different orders or kinds, and hence as not open to change” (Plumwood, 1993: 47-48).

Plumwood outlines a conceptual framework, what she calls the Master Model, which characterises the features of dualisms; backgrounding, radical exclusion or hyperseparation, incorporation or relational difference, instrumentalism or objectification and homogenisation. These five characteristics require discursive mobilization when creating a dualism and thereby constructing the Other. I will explore how these characteristics are deployed in the case of biopiracy, whereby the indigenous Other is positioned on the inferior side of the binary to enable exploitation and neo-colonization in the present day. Holly Wilson adds to this by stating that normative dualisms created in patriarchal-capitalist societies have functioned in various ways to discount indigenous peoples knowledge and skills (Wilson, 1997: 378). The indigenous Subject is marginalized and othered through the Master Model's five characteristics. A devaluation in the relationship between Self and Other occurs in which the indigenous Other is framed as having no intrinsic value to the life of the Master, this is known as backgrounding in Plumwood's model. Hyper-separation is magnified between the Self and Other to create a radical exclusion based on difference. This creates maximum distinction and distance. The indigenous Other's identity is defined by their difference (Spivak, 2010: 40) from the perspective of the Master. This identity of difference is defined in relation to the Master's identity. As Nancy Jay points out the dominant Subject is 'A' and the

subjugated Subject is therefore ‘Not-A’, this dichotomy positions only one term (A) with having any positive value and the ‘Not-A’ term as lacking all the value of the referent term (Jay, 1981: 44). Here the indigenous Other lacks the qualities of the Global North subjectivity these qualities being rationality and objective scientific thought. Instrumentalism is used in the construction of the indigenous Subject in the dualism as the indigenous Subject’s knowledges and environmental custodianship acts as a resource for the Master to achieve its goal.⁹ As Plumwood argues in this model, homogenization of the indigenous Other occurs to create an essentialized nature that can be deemed inferior and therefore can be oppressed. To the Master, the Other is just the rest, the background to his achievements and the resources for its needs: much as the environment and the indigenous Other become the (back)ground for biopiracy. The Master requires the subjugated Subject for its own positioning. Nature becomes the resource for the Master’s hierarchal power in a relationship of contingency. To support this relation of power, homogenization continues the work of making the colonized all alike. As Memmi shows, “the colonized is never characterized in an individual manner; he is entitled to drown in an anonymous collectivity” (1965: 25). Thus, the indigenous Other is placed in the dualism as the natural, backwards, uncivilized Other in comparison to the rational, scientific, modern hegemonic Global North Subject.¹⁰

The failure to acknowledge indigenous people’s right to self-autonomy, failure to respect indigenous lands and traditions, and the socio-economic oppression of indigenous peoples can be attributed to a hierarchal notion of subjectivity induced by binary thought. The Global North Subject defines itself as superior in relation to the indigenous Subject. Indigenous peoples become feminized and naturalized (Lorentzen, 2003: 62) in a Subject formation that constructs their existence as eternally consigned to the nature side of the nature/culture binary, as Mbembe explores:

“In the eyes of the conqueror, *savage life* is just another form of *animal life*... according to Arendt what makes the savage different from other human beings is... the fear that they behave like a part of nature, that they treat nature as their undisputed master. The savages are, as it were, ‘natural’ human beings who lack the specifically human character, the specifically human reality...” (2003: 24).

⁹ Master here indicates a variety of meanings both historically and literarily. Plumwood uses this terminology throughout the discussion of the Master Model, hence its use here. The term master emphasizes the subject position of the dominant figure in the binary as well as connotes historical meaning regarding colonialism.

¹⁰ This depiction equally homogenizes these two perpetually constructed Subject positions but is required to enunciate the foundational arguments made by this thesis and is done so by what is drawn from the literature. I am aware of the continuation of dualism whilst constructing this argument.

The idea that women and indigenous people were incapable of rational thought due to their perceived closer affinity with nature, inescapable embodiment and therefore lack of objectivity was highly influential during the colonial age and is, it remains to be said, still highly influential today. Building on Lorentzen, Kaplan asserts, indigenous people are feminized by being closely associated with nature (2006: 267), feminizing and naturalizing entire groups of people, regardless of gender, allows for authoritative patriarchal control over indigenous people (267). In a patriarchal world the assignment of people to nature by feminizing them removes their agency, as Ortner (1974) asserts. Their ability to self-present becomes limited as this Subject construction is stripped of credibility. Women, feminized Others, and the natural world are misrepresented as being benign, inert and passive (Shiva, 1994: 4). This use of dualism, between nature and culture, the rational and irrational, contributes to the mechanism of control whilst simultaneously discriminating against those who are naturalized (Douglas, 1996).

A feminist ecological response to these constructs, as proposed by Plumwood and Shiva, therefore recognizes that these re-presentations have been created by a patriarchal capitalistic culture and in order to respond to social and environmental issues that we face today we must sever the oppressive connotation attached to this ideological project (Shiva, 1994: 4, Kaplan, 2006: 267). If this is not pursued, the binary system of oppression cannot be transcended. As Kaplan comments:

“If they have fixed human natures, they cannot change. Robbed of volition, natural men and women fall to the level of animals. They become members of the wild kingdom rather than autonomous citizens or even worthy adversaries. So long as the gender system considers femininity as dependent, feminizing men justifies excluding them and all women from power, since both groups lack autonomy” (2006: 267).

Kaplan’s assertions speak to the oppression of indigenous peoples as indigenous men have been feminized by discourse in the Global North. The gender binary does not exhaust these problematic relations discussed in this thesis, however discussion of one binary breathes life into the discussion of others such as human/nonhuman, nature/culture and mind/body (Kirby and Wilson, 2012: 231), therefore it is productive to consider the issues raised from various gendered perspectives.

The centuries of European expansion and colonization created, perpetuated and sedimented the Subject construction of indigenous peoples (Harding, 1998), which laid the foundation for colonial and neo-colonial exploitation. These first explorations of *new* lands and encounters with *new* cultures formed colonial representation that sought to further justify the actions of the colonizers. The *Western gaze* of adventurers, travellers, researchers and colonizers projected onto the lives of the indigenous Other as told through homecoming stories, research and literature became universal truths (Smith, 2012: 78). What this led to was colonialist representations of the indigenous Other which became discourse and led to the marginalization of other stories, knowledges and the lived experiences of indigenous peoples (Said, 1978). In Said's Occident/Orient binary, the Oriental is viewed in a constructed position as backwards, degenerate, uncivilized and retarded (1978: 207). The Oriental is positioned by and in opposition to the progressive, rational and civilized Occidental. This representational myth begins to masquerade as fact and becomes systematic knowledge when left uncontested and perpetuated by other sources in the Global North.

Thus, what we can see is that the modern/indigenous binary is deployed through indigenous Subjects being constructed to mobilize justification for projects of imperialism. As Butler points out, "...hegemonic conceptions of progress define themselves over and against a pre-modern temporality that they produce for the purpose of their own self-legitimation" (2008: 1). This has further implications as when the indigenous Subject is framed as anachronistic, the need to modernize or intervene becomes legitimized in the Global North's colonizing mission. Creating this binary belongs to a well-established imperial regime of colonized people being depicted by the West as primitive and animalistic (McClintock, 2009: 63).¹¹ This uncivilized Other, in dire need of civilizing, became not only the foundation for colonial missions that haunted several centuries, but also the justification (Said, 1994: 39). In conclusion of this discussion what can be substantiated is that this mode of discourse production and Subject construction provides fertile grounds for the exploitation and appropriation of indigenous knowledges of biodiversity, which I will discuss further in the following chapters. Reading with Mbembe, it can be argued that indigenous lands, resources and knowledges have become neo-colonial spaces for the state of exception – where power (embodied by governments, institutions and corporations) is able to transcend the rule of law

¹¹ Here the term 'West' is not emphasized as here I am referring to that which we typically associate with the West; US and Europe. There is extensive colonial representation of colonized people in literature, art and academia fitting this framework.

for the ‘greater good’ - bolstered by these justifications (Mbembe, 2003).¹² From my own standpoint it appears that international law and human rights are flaunted in the act of biopiracy and ethical decency is sacrificed for mass economic gain in a redefined method of neo-colonial control.

Global North/Global South Relations

The international inequality between the Global North and the Global South has been well discussed and analysed. The ways in which globalization and the neo-liberal regime has created further polarization between “the West and the rest” is one of the key defining problematic features of international relations in the twenty-first century.¹³ Decolonization and the forced march of capitalism through trade relations, as well as World Bank and IMF policies have exasperated pre-existing relations by reinforcing and weakening countries as they transition from colonization to decolonization (Lazarus, 2011: 12). Lazarus asserts that capitalism and colonialism/neo-colonialism have close associations and must be recognized as sharing the ideology of uneven development (3). Patriarchal capitalism pushed on the Global South by the Global North from the beginnings of colonialism until the current day has created a relationship where the Global South operates as resource base and work house for the Global North. Fanon comments:

“From all these continents, under whose eyes Europe today raises up her tower of opulence, there has flowed out for centuries toward that same Europe diamonds and oil, silk and cotton, wood and exotic products. Europe is literally the creation of the Third World. The wealth which smothers her is that which was stolen from the under developed peoples” (1961: 102).

Fanon’s words highlight the unequal relation between the Global North and the Global South, and the processes that continue to exacerbate this relation. These relations are further intensified when indigenous peoples are considered. Indigenous peoples suffer from heightened oppression within the Global South due to their intersectional identity which encounters oppression along multiple lines; gender, ethnicity, race and class (Levitt, 2015:

¹² Mbembe’s work is heavily influenced by the ideas of Agamben. The concept of the state of exception is one instance of this. For further reading see Agamben (2005).

¹³ Neoliberalism is a political theory that describes the dominant international structure at the current time. The characteristics of neoliberalism are economic freedom through privatization and the rule of the market, deregulation of governments and social services and a focus on individual responsibility over public good (Harvey, 2005).

162). This highly intersectional identity makes it easier for indigenous people to be primitivized as various oppressed identities are combined.

Colonial Knowledge Production

With people and place firmly under neo-colonial rule and discourse supporting the actions of the colonizers, there remains the issue of the colonized societies' knowledge, industry and creativity. These Subject formations previously discussed have a bearing on knowledge production; who gets to produce knowledge, for whom, and in what manner knowledge can be produced and deemed to be true. Biopiracy re-writes knowledge production through intellectual property theft and the patenting of indigenous knowledges. Indigenous peoples knowledge production is re-written when multinational corporations and Global North governments commit these acts. Biopiracy is rooted in the enlightenment or modernist period which brought 'discovery' of other worlds and new knowledge; knowledge that was to be 'discovered', extracted, appropriated and re-distributed (Smith, 2012: 117). As Smith expands,

“the production of knowledge, new knowledge and transformed 'old' knowledge, ideas about the nature of knowledge and the validity of specific forms of knowledge, became as much commodities of colonial exploitation as other natural resources” (2012: 119).

Knowledge becomes as valuable as resources, specifically the knowledge of those resources.

Although the European colonial period is most commonly associated with the 18th and 19th centuries, the practices that formed colonialism stem from the first European imperialist voyage of discovery (Harding, 1998) in 1492 when Columbus discovered the Americas. During the colonial period European scientific and technological knowledge grew exponentially as a direct outcome of necessity, including the necessity to navigate new lands and the necessity to dominate the populations found there. For domination is required for colonial expansion and control. As a result, colonization brought mass systemic violence and entirely displaced beyond recognition the lives of colonized people (Fanon, 1961). De-development of non-European traditions occurred through the extraction of raw materials and labour that would have been used for local scientific and technological projects (Harding, 1998: 49). Local trade and systems were destroyed to accommodate European ventures and

trade expansion.¹⁴ Non-European cultures were framed as lacking knowledge and creativity as previous structures, systems, and theories became repressed in the destruction caused by colonialism.

What is less explored is the transfer of knowledge from the colonies back to Europe and the ways in which Europe, during the colonial period and since then, benefited from this knowledge. According to Whitt, local knowledge was appropriated by colonizers and incorporated into European projects to benefit the expansion project, and ultimately the economic prosperity of Europe. Knowledge of natural resources and their abundance of uses were synonymous with the growth of wealth and power (Whitt, 2009: 19), therefore biodiversity became of particular interest to colonizers. From the colonizers perspective the value of nature lies within its capacity to generate mass profit rather than the life sustaining regenerative capacity of nature (Shiva, 1989). Biopiracy, as the practice of appropriating natural resources for commercial value, has its roots in the biological transfer of plants and seeds during the early colonial period. European colonialists transferred plants indigenous to Latin America to Asia and Africa for plantation crop development. Countries in Latin America lost their industry, trade and knowledge in this transfer, whilst the real benefit went to Europe (Brockway, 1988: 51). This exemplifies the reinvigoration of neo-colonial practices that I am arguing for in this thesis, as biopiracy is precisely one of these subjugating processes modernized with patents. Through this narrative we can see that what was ‘discovered’ by the European civilized Subject was not primitive and void of scientific and technological knowledge. What was encountered was sophisticated knowledges about biodiversity that the European colonizers felt compelled to export it back to Europe to claim as new knowledge of systems and biodiversity founded by themselves (Harding, 1998: 52). These actions further bolstered the colonizer’s hierarchal positioning during colonial times. “The experience not only of discovery, but especially of conquest, is *essential* to the construction of the modern ego, not only as a subjectivity, but as subjectivity that takes itself to be the centre or the end of history” (Dussel, 1995: 25). These discoveries, framed as invention, self-situate the colonizing Subject in a central role.

In order for the colonizer to sediment its position the discourse of the natural, inferior, irrational, uncreative Other has to be normalized. This then allows for the theft of indigenous

¹⁴ Colonized countries were no longer able to trade resources between themselves, trade entirely ceased to exist outside of the one way flow to the colonizer countries. Where efficient local trade and local systems once stood, colonial exploitation cloaked this. For further reading see Gray R and Birmingham, D (1970) *Pre-Colonial African Trade: Essays on Trade in Central and Eastern Africa Before 1900* Oxford University Press, Oxford

knowledges to occur. Indigenous knowledge is easily discounted due to the constructed inferior Subject positioning of indigenous peoples. As indigenous knowledge is not viewed as scientific or rational from the perspective of the scientific paradigm, and therefore not accepted within Global North paradigm of knowledge production, it is discredited and marginalized (Connell, 2007). Furthermore, indigenous knowledge is often passed through oral traditions and not recorded or published in a Global North-normative literary manner, for example in academic journals. Thus it can be argued that is it easily plundered and reconstituted. The truth of origin, creativity and intellectual property ownership has to be entirely concealed for its exposure would throw the existing discourse into total disarray and no longer justify the actions of colonialism, civilizing missions, and the sanctioning of knowledge theft that may accompany these. The Global North Subject, which, in the case of this argument, includes multinational corporations and governments from the Global North, constructs knowledge under the disguise of the modest witness – the objective, infallible knower (Haraway, 1997). It is important to take note that the nature/culture binary is problematized in this transfer of resources and through acts of biopiracy. Knowledge is biodiversity, and vice versa, and cannot easily be assigned to one side of the binary as it straddles the two. Nature and culture become intertwined through indigenous knowledges and the appropriation of it.

Modest Witness

The production of scientific and technological knowledge has a history of hierarchical oppression. From the inception of scientific experimentation those deemed suitable to produce knowledge and in which way was clearly defined. And so the modest witness (Haraway, 1997: 24) was born. For Donna Haraway, this Subject was able to sediment its position as the only self-invisible, objective knower by normalizing the idea that “his subjectivity is his objectivity” (24). Through performing an air of legitimate agency and distancing himself from any form of knowledge viewed as ‘feminine’ (anything subjective, embodied or alchemical, but not necessarily originating in a or from a female biological body) and excluding women, people of lower class and people of different ethnicities from the space of knowledge production, therefore making their voices dissident and eventually invisible, the modest witness claims the space of knowledge production (27-32). Haraway sees this evolution of the experimental life as responsible for marginalizing various groups from the scientific world and also permeating these oppressive views out into society. She states,

“racial formation, gender-in-the-making, the forging of class, and the discursive production of sexuality [are created] through the constitutive practices of [knowledge production] themselves” (35). Discursive practice of knowledge production forge these same marginalized Subjectivities through constructing, re-presenting and positioning as less capable due to these categorizations. An intersectional (Crenshaw, 1989) indigenous identity, whereby an indigenous person suffers oppression along multiple lines; gender, race, ethnicity and class, leads to the entire marginalization and trivialization of knowledges produced by the indigenous Subject. Knowledges produced outside of the dominant paradigm becomes subjugated as they are:

“either hidden behind more dominant knowledges but can be revealed by critique or have been explicitly disqualified as inadequate to their task or insufficiently elaborated: naive knowledges, located low down on the hierarchy, beneath the required level of cognition or scientificity” (Foucault, 1980: 82).

Positivist accounts of Eurocentric masculinist knowledges are often in direct opposition to knowledges produced by subordinate groups, such as indigenous peoples, who have developed alternative standpoints and validation processes (Collins, 1991: 202). The former account is dominant and therefore subordinate knowledge is rarely recognized and those producing it even more rarely acknowledged (Smith, 2012: 121). This self-stated omnipotent embodied Subject defines its own reality as concrete experience (Spivak, 2010: 27) prioritizing its own in relation to all other experience. Knowledge and power intertwine to become a nexus of considerable force, continually constructing one another, capable of defining discourse. Foucault argues that knowledge and power cannot stand-alone, they are in a perpetual reliant construction of one another,

“knowledge linked to power, not only assumes the authority of 'the truth' but has the power to make itself true. All knowledge, once applied in the real world, has effects, and in that sense at least, 'becomes true.' Knowledge, once used to regulate the conduct of others, entails constraint, regulation and the disciplining of practice. Thus, there is no power relation without the correlative constitution of a field of knowledge, nor any knowledge that does not presuppose and constitute at the same time, power relations” (Foucault, 1977: 27).

This formidable force of power/knowledge constructs a referent figure for itself whilst simultaneously constructing the Other in opposition. The dominating power/knowledge nexus generates inequalities in the way knowledge is structured by legitimizing itself and delegitimizing alternatives (Shiva, 1993: 9). This is what leads Shiva to argue that modern knowledge systems, emerging from a colonizing culture, are themselves colonizing (9).

Biopiracy as Internationally Sanctioned Appropriation

As discussed previously, the concept of biopiracy has its epistemological roots in the colonial period. Otherwise framed as bioprospecting but termed biopiracy in this thesis due to its politically loaded associations with theft (Bender, 2003), biopiracy is “the practice of commercially exploiting naturally occurring biochemical or genetic material, especially by obtaining patents that restrict its future use, while failing to pay fair compensation to the community from which it originates” (Taylor, 2014). Ethnopharmacological studies have enticed many researchers and anthropologists to biodiverse areas of the Global South in search of *ancient* wisdom for *contemporary* healing (Lee and Balik, 2001).¹⁵ This type of eco-ethno research is highly problematic for various reasons as has been discussed previously. When multinational pharmaceutical and agrichemical companies fund research with invested interests in exploiting indigenous knowledges for the exclusive economic enrichment of the Global North (Tamale, 2001: 28) the central knowledge producing role of the indigenous Other is obscured in *Western* discourse and the economic relation between indigenous peoples, resources and the Global North is denied or presented in a paternalistic frame (Plumwood, 1993: 49). Through the framing of indigenous peoples as devoid of scientific knowledge the role of indigenous peoples is constructed as being unrelated to the knowledge production process. Beyond these problematic issues also lies environmental degradation, habitat destruction and resource exploitation.

Thus, in cases of biopiracy the appropriation of knowledge can be witnessed, and this denies the indigenous Subject the right to present and preserve one’s own scientific creativity, and the right to expression and self-determination. This theft can be viewed as double layered; first, it is the theft of intellectual and creative property nurtured by indigenous communities for generations, and second, the theft of potentially economically viable and life sustaining

¹⁵ “Ancient” and “contemporary” are both italicized to highlight the duality created through this language use.

resources (Shiva cited in Shah, 2002). Shiva further comments on the central role racism has in the hierarchy of knowledge production and how this applies to biopiracy,

“The knowledge of our ancestors [...] is being claimed as an invention of US corporations and US scientists and being patented by them. The only reason something like that can work is because underlying it all is a racist framework that says the knowledge of the *Third World* and the knowledge of people of colour is not knowledge. When that knowledge is taken by white men who have capital, suddenly creativity begins... Patents are a replay of colonialism, which is now called globalization and free trade” (Shiva, cited in Mohanty, 2003: 232-233, emphasis added).

Indigenous knowledges are discounted when they emanate from a racialized indigenous Subject, yet that same knowledge is venerated when it emanates from a Global North Subject. Biopiracy operates as another mechanism of silencing the indigenous Subject, Those who do not fit within the neo-liberal capitalist regime and Global North’s narrow concept of modernity are disqualified, therefore reifying the Global North’s supremacy. This act is authorized by the subtle nuances of international legislation on the rights of indigenous peoples and trade and patent related laws that circumvent obstacles to the misappropriation of indigenous knowledges. Subject construction of the natural, inferior indigenous Other is created and sustained through these documents, as will be analysed in chapter four, enabling this discourse of exploitation. In the following chapter the postcolonial ecofeminist perspective used to frame this exploration will be detailed, accompanied by the critical discourse methodology that will be used to analyse the international legislation.

Chapter Two: Theoretical Framework and Methodology

Postcolonial Ecofeminism

The complex nature of the relations that this thesis engages, whereby various forces of power are exerted upon both indigenous peoples and the environment, calls for a plural, interdisciplinary approach. I will use an intertwined theoretical framework, borrowing from both postcolonial and ecofeminist theory. Bringing together the concerns of these theories – postcolonialism and ecofeminist issues – operates to challenge the continuing imperialist modes of social and environmental degradation, which are central concerns for this thesis. By creating a fluid conversation between postcolonialism and ecofeminism, the space required to discuss the various issues I wish to address in this thesis is created; the lived oppression of indigenous peoples, the simultaneous abuse of the environment and the ‘natural Other’, hierarchical knowledge production, and the nuances of the hegemonic global capitalist order that creates and sustains oppression in order to maintain the status quo of global inequality. A postcolonial ecofeminist theoretical framework views the oppression of nature and the oppression of the Other as being intimately bound to notions of class, caste, race, colonialism and neo-colonialism (Kaur, 2012: 100). This approach also enables us to recognize the double bind face by colonized women (Campbell, 2008: xi), however, specific to this analysis is the triple bind faced by indigenous peoples. Indigenous peoples are feminized regardless of gender, naturalized due to being indigenous and colonized through neo-colonial exploitation. Using postcolonial theory or ecofeminism alone cannot adequately address the complexity of postcolonial ecofeminist issues as both theories have been dominated by Eurocentric viewpoints in academic institutions (Kaur, 2012: 100). For this thesis it is imperative to interrogate the practices of the Global North using a postcolonial ecofeminist perspective.

Postcolonial theory is concerned with challenging representation, both symbolically and in terms of how people are re-presented. Through representation mediation occurs (Michael, 1996: 37), authentic re-presentation is impossible to achieve, a separation between who represents and who is being represented occurs. Postcolonial theory aims to de-colonize re-presentation by creating space for people to represent themselves and a create visibility of a whole plethora of standpoints. Postcolonial theory interrogates euro-centricity, dominant hierarchies created along lines of gender, ethnicity and class, and knowledge production about the lived experiences of previously colonized people. Using a postcolonial perspective makes visible the lives of those who are systematically oppressed or inaccurately constructed by

researchers and academics, politics and international relations, media and popular culture. Postcolonial theory helps to highlight the revitalization of colonialism through the act of biopiracy, international capitalism and international law. Pradhan Prasad argues that there is a consistency of systemic oppression of former colonies since colonization until the present day (1996: 719).

The Global North has colonized scientific and technological research (Appadurai, 2001) with its dominance over science and technological innovation and long established academic institutions with financial backing to pursue knowledge production. Furthermore, postcolonial theory aims to decolonize knowledge and knowledge production by demystifying the connections between the Global North and knowledge, this process is tied to aiming to create visibility of different standpoints. In connection with decolonizing indigenous knowledges this aim is particularly relevant. Without a postcolonial perspective, debunking the Global North's claims to indigenous knowledges and biodiversity through patents and biopiracy would not be possible. Furthermore, postcolonial theory pays attention to those systematically oppressed in the global arena, shifting the gaze from the Global North to the Global South, and the effects this oppression has upon those communities. With this perspective we see how neo-liberalism, trade and globalization stemming from the Global North affect the Global South adversely. As Gaard (2010: 12) argues, "the localities of third world communities have been pillaged, resourced and outsourced, as well as polluted and degraded in the process of globalization; 'cosmopolitanism' accrue primarily to the urban elites who benefit from globalization". Exploring these relations is key to destabilizing the myths surrounding them and therefore also the oppressions they maintain.

Eco-feminism similarly gives us particular insights into these issues as it provides a tool for exploring the simultaneous exploitation of 'natural Others' and nature, whilst also critiquing globalization and re-assessing views of nature as futile, inert, passive and therefore feminine, as we find in binary thinking. Ecofeminism asserts that the domination of women and of nature have shared roots which stem from science and capitalism (Shiva, 1989), where economics and rationalism fuse. This dominating logic originates in the colonialist 'voyages of discovery' through which indigenous knowledges and nature were appropriated for the exclusive benefit of *Western* science (Harding, 1989). These actions function to remove the self-determination and wealth from indigenous peoples and nature (Plumwood, 1993). Plumwood discusses how this dominating, appropriating Master narrative creates knowledge of the world that is systematically distorted by its own elite subjectivity. However, the Master

narrative has developed weaknesses and blinded itself to issues that pose great threats to our survival. The future of the environment and the lives of the Other are contingent on increasing ability to create a truly democratic and ecological culture beyond dualism (Plumwood, 1993). Ecofeminism works from this standpoint to discuss how we can tackle the dual oppression of the environment and the naturalized feminized Other whilst destabilizing the master narrative. For the inquiry of this thesis, ecofeminism provides a useful analytical tool for exploring the colonization and appropriation of indigenous knowledges and how this is supported by views of the natural Other and the environment which are created and circulated in and by the Global North to support acts of biopiracy.

Using eco-feminism in a non-essentialist re-vitalized way in this thesis can help to destabilize the engrained nature/culture binary, dualistic thinking that causes harm to the indigenous Other and the environment, as will be demonstrated and as is argued by many critical ecofeminists who place the accountability of ecological failures with it (Warren, 2000). Ecofeminism has suffered a long era of critique, being charged with reproducing an essentialist understanding of nature, and therefore woman, on the basis of its approach to embodiment and its foregrounding of certain material connections with the environment (Gaard, 2011: 42). Indeed, the perceived anti-feminist and essentialist assertions that are said to mark this perspective have led to a shying away from the theory in women's studies, gender studies and queer studies (33). However, its intellectual origins, foundational inquiries and dedication to an inclusive feminism set on alleviating oppression for and beyond anthropocentric lines makes eco-feminism a credible and contemporarily relevant analytical lens to work with in conjunction with the attentions that a postcolonial perspective delivers. Ecofeminism offers a critique of economic imperialism, colonialism – both cultural and ecological –, and gender oppression (44). As hooks points out, feminism, as a struggle for liberation for all, must participate in other movements that share the struggle against the ideological foundation of patriarchal oppression, racism, and environmental degradation in order to achieve emancipation from these systems (1989: 22). Based on this assertion feminist and ecological movements can work harmoniously to attend to working against these systems. Creating alliances in theory and practice is vital for cross-cultural understanding and interdisciplinary work that will benefit the movement towards liberation of the Other and the environment. Thus, although there are criticisms of essentialism in ecofeminist work, alliances between environmentalists, feminists and indigenous peoples should not be denigrated due to the potentially problematic relations these alliances create (Jacobs, 2003:

667). Similarly, although essentializing indigenous peoples and their perceived connection with nature is highly problematic, as much of the literature argues, focusing solely on this issue denies any positive and progressive engagements that are happening as is correspondingly argued by Spivak's notion of strategic essentialism. The risk of essentialism should not preclude us from working with these categories in order to make visible and address conditions that impact certain lives.

Combining these two rich and diverse, yet not always necessarily complementary, schools of thought, and working with an interdisciplinary approach allows us to acknowledge a multitude of standpoints and intersectional issues which are key to the line of investigation of this thesis. Discussions surrounding the international implications of colonialism and imperialism must consider the complex interaction between the environment and political and cultural categories such as state, society, conflict and literature. Whereas discussions surrounding the importance of the protection of the environment must consider the social and historical categorization of resources, bio-regions and species (Mukherjee, 2006: 144). The lived experience of indigenous peoples is complex, facing environmental and development issues, social and economic exclusion and oppression, and indigenous identities are highly intersectional identities, combining issues of race, ethnicity, gender, class and caste. Therefore, an intertwined approach of postcolonial ecofeminism is the most advantageous theoretical perspective to use for the purposes of this thesis investigation.

Re-presentation and Reflexivity

Vital for the aims of this thesis is the ability to use reflexivity when discussing representation in/and research and to this end a postcolonial ecofeminist perspective is helpful as it allows for the analysis of Subject constructions, in this case those that are constructed over the lives of non-white, *non-Western*, colonized, or indigenous peoples. Simone de Beauvoir discusses how representations are created from partial perspectives that transcend into absolute truths when created by those with hegemonic power. "Representation of the world, like the world itself, is the work of men; they describe it from their own point of view, which they confuse with absolute truth" (de Beauvoir, 1972: 161). Those privileged within the hierarchy have the power to represent the Other. Representation is therefore an important focus of this thesis because we see that the power to re-present is concentrated in the hands of elites, in this case the Global North holds the power to re-present indigenous peoples. The ways in which the indigenous Other is re-presented through the Subject construction devised

by the Global North creates the oppressive dualism necessary for the colonization of indigenous knowledges through acts of biopiracy. Said's extensive exploration of the ways in which the Oriental Other is represented by the Occidental Subject in literature and academia is relevant here. In his important text, *Orientalism*, Said asserts that a "phenomenologically reduced status" is placed upon the Oriental that can only be accessed by a *Western* expert (1978: 283). Since *Western* re-presentations of the Orient began to arise, the Orient has been unable to represent itself as hegemonic Western representations engulf any attempt. Thus knowledge of the Orient can only be deemed credible once it had been refined by the Occidental's work (283).

This process of re-presenting through *Western* eyes that Said speaks of is supported by institutions, vocabulary, scholarship, imagery and doctrines (Said, 1978) hence representation's power which is performed through discursive meaning which is both constructing of and constructed within social spheres. When representing the Other, their agency to represent their own experiences becomes obscured and removed. Taking up this issue in her seminal paper, "Can the Subaltern Speak?" Spivak (2010) met her question with the answer of a resounding no: a response that exemplifies the lack of ability one has to represent oneself as a hyper-oppressed individual or collectivity. Mohanty moves beyond Spivak's assertions and invites us to consider the possibility of a shift in the politics of representation and states, "it is time to move beyond the Marx who found it possible to say: They cannot represent themselves; they must be represented" (Mohanty, 2003A: 354).

Thus, as these arguments make clear, it is imperative that whilst conducting research and theorizing one is attentive to representation - the act of speaking about and for another. The use of a postcolonial standpoint can assist me in remaining sensitive to the forms of colonialist power relations that frequently shape knowledge production. In this way, postcolonialism can help me to interrogate my partial perspective and privileged standpoint (Haraway, 1988). It offers a reflexive approach that foregrounds the way one's positionality influences what knowledge is produced in the research process, while drawing attention to the partial perspective (Haraway, 1988) that one necessarily inhabits in this process. This reflexive approach is also relevant to the political interests of this thesis. Perpetually interrogating the claims and assumptions one makes whilst theorizing from one's own standpoint helps to reduce the prospect of reproducing hierarchies and perpetuating colonial re-presentations. I must critique my own gaze and be careful not to encode my own

representations as truth, so as not to marginalize other alternative readings. In this way I can aim to avoid conducting research through imperial eyes (Smith, 2012). Through the analysis and discussion I will attend to the Global North's behaviour and the effects this has on the lived experiences of indigenous peoples in postcolonial India with regards to resources, knowledge and the politics of representation. In doing so I do not wish to speak for indigenous peoples or perpetuate essentialist tropes of indigenous peoples as Mother Nature's carer. I wish to destabilize this, to untwine the tangled woman-nature-nurturer knot that has been dreamt up. I wish to de-essentialize the image of indigenous peoples through showing that the reason why the homogenized scientific and modern Global North seeks the knowledges of indigenous peoples is due to the complexity, creativity and fruitfulness of these knowledges. Again, I must be aware of not glorifying sites of indigenous knowledges as green utopian paradises capable of offsetting global environmental degradation, but instead attend to them as an alternative modernity based on differing values that demonstrate alternative knowledge production and deserved recognition, protection and self-determination. Furthermore, despite the urgent need to pay attention to *non-Western* knowledge – knowledges that sit outside of the dominant knowledge paradigm -, it remains pertinent to remind oneself of the violence and oppression within the Global South and indigenous communities with regards to gender, sexuality, religion and class (Shome, 2012: 200). The idea is not to reverse the nature/culture binary or create an indigenous-centrism as opposed to a Global North-centrism but instead move beyond these dominating dualistic ways of perceiving the world (200).

Critical Discourse Analysis

To understand how the systematically aided oppression of indigenous peoples (Castellino and Gilber, 2003) is connected to processes of representation and forms of knowledge production – as exemplified and embodied in the case studies of biopiracy that I will later work with – it is helpful to examine pieces of legislation that support such oppressions. Analysing the official language used in these pieces of legislation makes visible the politics of representation that are mobilized through the legislation with regards to indigenous peoples and nature. These national and international, legal and non-binding pieces of legislation create the political landscape and social arrangements from which my analysis will depart. Through a feminist critical discourse analysis, I will explore the empirical relations between discourse and social and cultural developments (Jorgensen and Phillips, 2002: 60) that support the

central claims of this thesis; that indigenous knowledges are colonized in acts of biopiracy by corporations and governments representing the Global North.

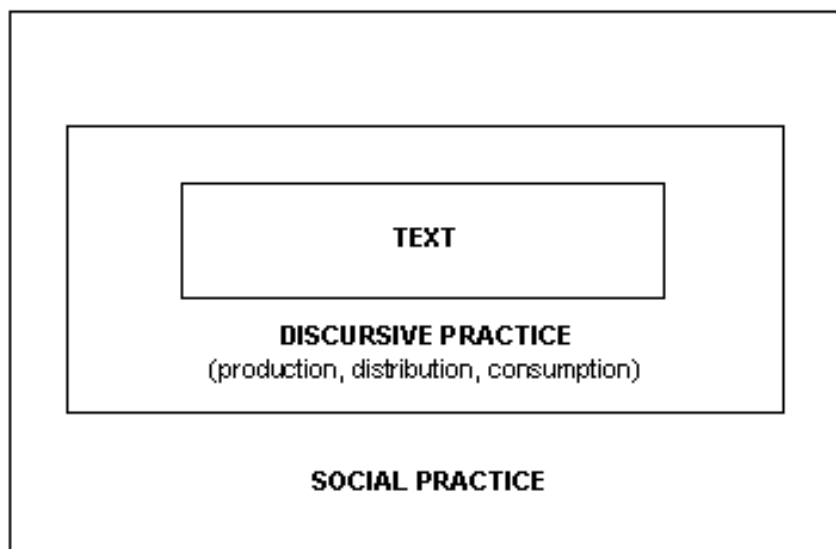
Critical discourse analysis (CDA), first fully articulated by Norman Fairclough, explores the various ways in which discursive practices in everyday life have the power to shape social and cultural realities. Discourse is both constituting of the social world and constituted by social practices; discourse is in a dialectical relationship with other social dimensions (Jorgensen and Phillips, 2002: 62). Fairclough defines CDA as an approach that can be used to investigate systematically,

“[o]ften opaque relationships of causality and determination between (a) discursive practices, events and texts and (b) broader social and cultural structures, relations and processes [...] how such practices, events and texts arise out of and are ideologically shaped by relations of power and struggles over power [...] how the opacity of these relationships between discourse and society is itself a factor securing power and hegemony” (Fairclough, 1993: 135).

Fairclough’s CDA borrows extensively from Michel Foucault’s notions of power/knowledge and discourse and language to analyze effects discursive practices have for the macro-social. Discourse here is understood in the Foucauldian sense whereby discourse embodies power and operates on all levels of society through many mechanisms creating a single regime of truth (Foucault, 1977). Hegemonic ideologies are transmitted through discursive practices as constructed meanings which contribute to the production, reproduction and potential transformation of relations of domination (Fairclough, 1992: 87). Such ideologies are structured according to categorizations such as gender, race and ethnicity and are used to mobilize and maintain unequal power relations. CDA aims to reveal the role discursive power has in maintaining the social order in which (these) relations are unequally structured. Whilst uncovering these underlying structures of oppression, CDA creates a critical space for alternative voices and ideas to counter and balance the dominant hierarchical paradigm, which makes it an ideal methodology to use for this postcolonial ecofeminist analysis. Furthermore, CDA is an emancipatory methodology in that there is a belief that through unveiling discursive power, discursive power can be used to challenge hegemonic ideologies.

Fairclough's CDA brings together three fields of discourse analysis investigation; linguistic textual analysis, discursive practice (macro-sociological) analysis of social practices and the social practice (micro-sociological) level whereby everyday life is produced by discourse. This three dimensional model explores these three levels as an analytical and methodological framework for empirical research on the ways in which society is affected by discourse and visa versa. This approach is consistent with the research I am conducting on the colonization of indigenous knowledges and it will assist me in investigating the layered nature of the dynamics of the relations that take the focus here;

- the textual analysis will be conducted upon three pieces of legislation,
- the macro-sociological effects are exemplified through the exploration of the relations between the Global North and the Global South and the exploitation of the environment for capitalist gain sanctioned by the discursive practice,
- the micro-sociological level relates to the lived experiences of indigenous peoples at the level of social practices.



A representation of Fairclough's three dimensional model (Fairclough, 1992: 73).

Textual Analysis

The textual analysis will be conducted upon several pieces of legislation. The pieces of legislation include;

- The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIPS)
- United States of America Patent Law
- The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) administered by the World Trade Organisation (WTO)

These documents will be analysed through several linguistic tools suggested by Fairclough (1992: 152-194):

- interactional control: the relationship between speakers and who is setting the agenda,
- ethos: how identities are constructed through language,
- wording: how specific linguistic choices affect meaning,
- grammar: how the structure of the language effects meaning,

With these tools I aim to unveil the covert power structures such legislation contains. To this end, I will demonstrate the way in which the specific language used in these documents aids the Subject construction of indigenous peoples and provides States with agency regarding their actions towards indigenous peoples. What this reveals is that these pieces of legislation leave those they aim to protect vulnerable to exploitation by governments and transnational corporations, as is the claim of this thesis.

Discursive Practice

For Fairclough, discursive practice relates to the ways in which a text is produced, distributed and consumed. Questions of agency and representation can be raised here as the discursive analysis asks, in a manner that recalls the aims of postcolonial and feminist inquiry to attend to power dynamics within processes of representation, how the text is produced, by whom and for whom? The intertextual nature of the documents will also be discussed, as each communicative event is a part of the social practice that reproduces the discursive status quo, the prevailing hegemonic ideology and the dynamics and relations this structures. With this particular focus of analysis, Fairclough's model works with the idea that discourse is a system of statements that combine to create a hegemonic order. The statements, texts or events are produced in an ongoing discursive stream whereby the previous statement builds on the context of the one before it (Foucault, 1972). Each of these discursive events helps to shape, and is also shaped by, other social practices through their relationship to the discursive status quo which is itself a dialectical relation. Intertextuality refers to how historic conditions influence the discourse and vice versa, as texts draw on earlier texts for support (Kristeva,

1986: 39). In this way, discourses operate in nexuses to weave systems of control through and within society, building upon one another to maintain hegemonic dominance. The intertextuality of the three documents that will be analysed here is important as it shows how hegemonic power is produced by the governments of the Global North in order to retain their hierarchal position that allows the exploitation of the indigenous Other.

Social Practice

Finally, the micro-sociological level of the analysis will explore whether or not the ways in which a text is produced, distributed and consumed reproduces the existing order of discourse and what the consequences of this are on a social level. The ways in which the discourse contributes to the construction of social identities and relations, in the case of this thesis the construction of the indigenous Other and the relations between this constructed Subject and the Global North, and to systems of knowledge and ways of knowing will be discussed. How the documents and their discursive power affect the lived experiences of indigenous peoples, with specific regard to knowledge production, will be explored here. The outcomes of the text and discursive practice have serious implications for the indigenous Other and the environment as can be seen in cases of biopiracy.

Feminist Critical Discourse Analysis

Although, I will follow Fairclough's three dimensional model to conduct the discourse analysis, I will do this through the lens of a feminist discourse praxis. A feminist critical discourse analysis (FCDA) aims to advance nuanced understandings of the complexity of power and ideology at work in discourse that sustain hierarchically gendered social arrangements (Lazar, 2007: 141). FCDA approaches gender with a broader understanding as a social category that intersects with other categories of social identity such as sexuality, ethnicity, age, ability, class, position and location (141). FCDA also recognizes that ideological systems intersect to create powerful nexuses, having further implications for subjectivities, for example the complex interactions between patriarchy and corporatist and consumerist ideologies (141-142). This is especially pertinent for the exploration of appropriation of indigenous knowledges of biodiversity by the Global North for exclusive economic benefit. Exploring discourse strategies and structures shows the complex ways in which assumptions of gender and hegemonic power relations are discursively re-produced, negotiated, as well as contested (1-2). According to Fairclough, through this contestation within discourse, social

change can occur. When discourse is contested through creativity and using discursive elements in new ways change can take place (Fairclough, 1995: 56). With a FCDA, I aim to explore how discursive power has helped to create and sustain the social and political conditions that support the colonization and appropriation of indigenous knowledges. A postcolonial ecofeminist theoretical framework is complimented by a FCDA methodology as both endeavour to make visible hidden power structures, and to challenge representation and dominant thought.

Chapter Three: Analysis and Case Studies

This chapter will undertake an analysis of three pieces of legislation, UNDRIP, US Patent Law and TRIPS, through the framework of Fairclough's three dimensional model. These documents were selected due to their relevance to the central concerns of this thesis, that is, how they might perform subject constructions and hierarchal relations, if and how indigenous peoples are naturalized and feminized through the language used in these documents and whether indigenous knowledges and knowledge production in the Global South is devalued on this basis. Legislation was analysed looking for key moments when these concerns might be mobilized. By paying attention to the power structures these documents potentially create and reinforce, the effects that this discourse has on the lived experiences of indigenous peoples in the case of biopiracy will then be discussed by way of analysis of three case studies of biopiracy in contemporary India.

Textual Analysis

The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) was adopted by the UN General Assembly in 2007. The declaration aims to:

“Affirm that indigenous peoples are equal to all other peoples, [...] that all doctrines, policies and practices based on or advocating superiority of peoples or individuals on the basis of national origin or racial, religious, ethnic or cultural differences are racist, scientifically false, legally invalid, morally condemnable and socially unjust [...] reaffirm that indigenous peoples [...] should be free from discrimination [...] recognizing the urgent need to respect [...] the rights of indigenous peoples which derive from their political, economical and social structures and from their cultures, spiritual traditions, histories and philosophies, especially their rights to their lands, territories and resources” (UNDRIP, 2007: 1-2).

The UNDRIP states that its aim is to recognize the rights of indigenous peoples and create harmonious relations between states and indigenous peoples based on principles of justice, democracy, human rights and non-discrimination (UNDRIP, 2007: 3). The language of protection and equality is used here, with an emphasis on a universal idea of rights. However, the declaration is non-legally binding. Therefore, states have a choice whether or not they

acknowledge and ratify it. In 2007 143 states voted in favour of the declaration¹⁶ and 4 States voted against it: Australia, Canada, New Zealand and the United States.¹⁷ Thus I would argue that the claims of universal protection and equality are undermined by the ability for States to differentially apply the declaration. This means that States who do not abide by the declaration cannot be sanctioned with regard to their actions towards indigenous communities, which may therefore allow for exploitation and appropriation of indigenous knowledges of biodiversity. To put it simply, the language of protection enables exploitation. This can be seen in action in the case studies as the US overrides the principles of the UNDRIP by granting patents of indigenous knowledge of neem, basmati and turmeric to multinational corporations and Global North institutions.

The textual analysis of the UNDRIP produced interesting findings with regard to subject construction and issues of gender. Most prominently, the language used in the UNDRIP is mostly gender neutral, with a distinct lack of gender focus. The UNDRIP discusses women in three articles out of a total of 46.¹⁸ These articles state that vulnerable indigenous peoples ought to be provided greater protection. However, there is a lack of intersectional discussion, meaning specific, multiple identities which overlap in complex ways are not considered, and therefore a homogenization of the different categories of vulnerable Subjects that the

¹⁶ 143 States in favour: Afghanistan, Albania, Algeria, Andorra, Angola, Antigua and Barbuda, Argentina, Armenia, Austria, Bahamas, Bahrain, Barbados, Belarus, Belgium, Belize, Benin, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Brunei Darussalam, Bulgaria, Burkina Faso, Cambodia, Cameroon, Cape Verde, Central African Republic, Chile, China, Comoros, Congo, Costa Rica, Croatia, Cuba, Cyprus, Czech Republic, Democratic People's Republic of Korea, Democratic Republic of the Congo, Denmark, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Estonia, Finland, France, Gabon, Germany, Ghana, Greece, Guatemala, Guinea, Guyana, Haiti, Honduras, Hungary, Iceland, India, Indonesia, Iran, Iraq, Ireland, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kuwait, Lao People's Democratic Republic, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Mauritius, Mexico, Micronesia (Federated States of), Moldova, Monaco, Mongolia, Mozambique, Myanmar, Namibia, Nepal, Netherlands, Nicaragua, Niger, Norway, Oman, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Republic of Korea, Saint Lucia, Saint Vincent and the Grenadines, San Marino, Saudi Arabia, Senegal, Serbia, Sierra Leone, Singapore, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sudan, Suriname, Swaziland, Sweden, Switzerland, Syria, Thailand, the Republic of Macedonia, Timor-Leste, Trinidad and Tobago, Tunisia, Turkey, United Arab Emirates, United Kingdom, United Republic of Tanzania, Uruguay, Venezuela, Viet Nam, Yemen, Zambia, Zimbabwe (UN Press Release, 2007).

¹⁷ These States rejected the declaration at the UN General Assembly for various reasons, most pertaining to the self-determination and sovereignty of indigenous peoples (UN Press Release, 2007).

¹⁸ Article 21.2: states shall take effective measures and, when appropriate, special measures to ensure continuing improvement of their economic and social conditions. Particular attention shall be paid to the rights and special needs of indigenous elders, women, youth, children and persons with disabilities. (UNDRIP, 2007: 9).

Article 22.1: Particular attention shall be paid to the rights and special needs of indigenous elders, women, youth, children and persons with disabilities in the implementation of this Declaration. (UNDRIP, 2007: 9).

Article 22.2: States shall take measures in conjunction with indigenous peoples, to ensure that indigenous women and children enjoy the full protection and guarantees against all forms of violence and discrimination. (UNDRIP, 2007: 9).

Article 44: All the rights and freedoms recognized herein are equally guaranteed to male and female indigenous individuals" (UNDRIP, 2007: 14).

declaration lays out. Although the declaration *does* cite that women, children, the elderly, the young and those with disabilities have special needs and require further attention to be paid to their rights, it does not further explain what these needs and rights are, nor how they can be protected. Furthermore, the declaration states that these groups require this undefined *particular attention* only when the State deems it to be *appropriate* (see article 21.2). Thus we find embedded within the language of this declaration a notion of agency that is attached to the State as that which makes decisions regarding what measures to protect certain indigenous Subjects can be taken and when. In the absence of intersectional and specific discussion of the needs of different groups of people, and through the framework of this critical discourse analysis from an ecofeminist postcolonial perspective, my conclusion drawn is that the declaration exemplifies the naturalized and feminized status of indigenous peoples from the perspective of the United Nations (UN) and the international community through marginalization and homogenization. This interactional control, who sets the agenda and how different actors are positioned in relation to each other through the discourse on the rights of indigenous peoples, displays the hegemonic positioning this intergovernmental organization has. The UN has set the agenda on the rights of indigenous peoples through this declaration in accordance with recommendations from the Human Rights Council. However, without a detailed and specific gender and ethnicity focus, indigenous subjectivities cannot be adequately explored and protected.¹⁹ Through the language of universal equality certain groups of people with specific Subject positions are left vulnerable as their specific needs are not taken into account due to universality being based upon an ‘average’ Subject. This homogenization of indigenous peoples into one collectivity, as represented in the discourse of the declaration, applies directly to Plumwood’s master model whereby oppressive dualisms can be created. This dualism, individual privileged Subjects as opposed to an anonymous mass of unnamed Subjects, creates the homogenization of indigenous peoples and serves to disqualify the diverse lived experiences of indigenous groups globally and within indigenous communities themselves. In this way, the oppression of the collectivized, natural and inferior Other is effected and maintained. This is instrumental in the cases of biopiracy discussed later as indigenous peoples knowledges of biodiversity are appropriated due to its inferior positioning.

¹⁹ Gender here meaning not only a persons gender but also other identities such as race, ethnicity, age, ability, and so forth.

Intellectual property rights (IPRs) were established in the Global North to encourage development of intellectual knowledge and creativity. Under IPRs and patenting laws creators of knowledge are protected from having their intellectual property appropriated (Sarma, 1999: 1). However, as IPRs and patenting laws only apply to the countries that have them in place, predominantly countries in the Global North, this leaves a legal loophole, which can lead to the exploitation of knowledges in the Global South, this loophole will be further analysed later. IPR's have been enshrined in national and international law through domestic patent laws and the Agreement of Trade-Related Aspects of Intellectual Property Rights (TRIPS) administered by the World Trade Organization (WTO) (Moschini, 2004).

US Patent Law provides legal stipulations that create space for biopiracy to be enacted, and US Patent Act Clause 102 specifically.²⁰ This clause does not include knowledge that is known or used in foreign countries that is not published in print form in those countries, creating said loophole. This is highly problematic as it positions US patenting at a dramatic advantage whereby knowledge can be legally appropriated from foreign countries. Already an issue for recorded or written knowledges from places outside of the US, the impact of this loophole is particularly dramatic when it relates to oral traditions. Indigenous knowledges are often maintained through oral traditions (Simpson, 2004: 374), this is public knowledge yet it remains unpublished and outside of the US. Therefore, this is not classed as “prior art/knowledge” under US Patent Law. This serves to privilege US interpretations of prior knowledge and therefore allows for patenting in the Global North. This narrow and *Western*-centric definition of prior public knowledge can be used to allow for multinational corporations to commit acts of biopiracy, and therefore exploit indigenous knowledges for economic enrichment. The Global North institutions, declarations and corporations are implicated culpably as can be seen in the cases of neem and turmeric where prior knowledge

²⁰ US Patent Law Clause 102 on the conditions for patentability and novelty states,

- a) “novelty; prior art – a person shall be entitled to a patent unless –
 - 1) the claimed inventions was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public. . .”

Clause 102 on the conditions for patentability, novelty and loss of rights to a patent goes on to comment,

- “A person shall be entitled to a patent unless -
 - (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or
 - (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or [...]
 - (f) he did not himself invent the subject matter sought to be patented” (USPTO, 2015: 102).

was ignored due to its lack of similarity to the *Western*-centric definition. On a separate vein of analysis, US Patent law uses male pronouns throughout. This gendered use of language, *he* and *himself*, signifies a patriarchal perspective in the legislation that aligns the male gender with patenting. This further points towards the construction of a binary at work within the legislation that positions the Global North at an advantage and the Global South and the indigenous Other in a feminized and therefore marginalized position.

The TRIPS agreement aims to encourage the constant evolution of ideas by providing ample protection to intellectual property rights owners and rewarding their innovativeness and ingenuity (Garcia, 2007: 13). This agreement also aims to create uniform standards to which all States must adhere with regard to intellectual property. However, the agreement is tailored towards the needs and standpoint of the Global North in the respect of economics, trade and the value of certain goods, and this creates an unequal power relation with the Global South (Bender, 2003). The placement of the discussion of plant and animal life in the TRIPS declaration shows the value attributed to it by the Global North. The article concerning plant and animal life can be found after articles concerning wine and spirits²¹ and industrial designs.²² A hierarchy is instated here, that which is produced by human labour and requiring a level of scientific expertise is valued and prioritized above that which is re-produced by those who are constructed as being closer to the earth. The article discusses how *protection* shall be accorded to these items, that they shall be *differentiated from each other* and the *treatment of the producers and consumers* be taken into account. Indigenous peoples are devalued through this ordering as that which is viewed as close to the earth, reproductive and non-commercial is feminized and therefore marginalized. Although article 27 extensively covers the unpatentability of plant and animal life, this can be circumvented if States place plant or animal life under a *sui generis* system.²³ A *sui generis* system is a protective mechanism that is created outside of existing frameworks. The effective implementation of such a system is not elaborated in TRIPS, suggesting that this is also at State's discretion and

²¹ TRIPS Article 23 See appendix

²² TRIPS Article 25 See appendix

²³ TRIPS Article 27.2 Members may exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which is necessary to protect *ordre public* or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment, provided that such exclusion is not made merely because the exploitation is prohibited by their law.

TRIPS Article 27.3. Members may also exclude from patentability:

(a) diagnostic, therapeutic and surgical methods for the treatment of humans or animals;

(b) plants and animals other than micro-organisms [...] Members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof..." (TRIPS, 1994: 331).

convenience. In this way plant and animal life can fall under the ‘protection’ of corporations and governments who must create a similar mechanism to IPR’s as a *sui generis* system. There is a suggestion of agency with the use of the word *may*, for example *may require* and *may adopt such practices*, which connotes a sense of circumstantial decision-making and negotiability.²⁴ With this lack of decisive language, governments and corporations are given the space to commit acts of biopiracy should they wish, for example through not creating an effective *sui generis* system. This reinstates the same issues as patenting, which leaves indigenous knowledges inadequately safeguarded against potential exploitation.

All three documents place great emphasis on the nation-state, with all citing that responsibility to respect the law and rights lies with the state and actors within that State as representatives of that nation-state. Thus a notion of nationhood can be mobilized within this emphasis on the State, particularly with regards to the UNDRIP and clauses discussing the self-determination of indigenous peoples.²⁵ It has been argued that indigenous peoples represent a threat to State order (Champagne, 2005: 18), as they do not fit neatly into the nation-state model.²⁶ It is my assertion that indigenous lands, territories and resources ought to contain their own sovereignty, however, this conflicts with the nation-state model. Gellner argues that the State’s ability to govern the nation is delegitimized by indigenous peoples ethnicity and ways of living as, “political legitimacy... requires that ethnic boundaries should not cut across political ones, and in particular, that ethnic boundaries within a given state... should not separate the power holder from the rest” (Gellner, cited in Yuval-Davis, 1992: 3). Emphasis is placed on the State through extensive repetition throughout the legislation, this emphasis locates the State in a position of importance. The UNDRIP mentions the State 41 times, repeatedly using phrases such as *the state shall establish, take effective measures, implement, seek, apply*, and so forth. This use of language indicates that power is located within the State as the decision-making body, which is able to make decisions that are sensitive to the lives of indigenous peoples. And similarly to *may*, the use of the repetitive use of word *shall*, coupled with the *State*, is again non-committal in connotative meaning. It implies that the State has an ethical duty to uphold the statements in the declaration, but it is not required to do so. The State is advised to take *effective measures* and act with *due respect* in relation to upholding the rights on indigenous peoples and providing protective measures.

²⁴ See appendix for the full TRIPS agreement.

²⁵ See articles 3 and 4 for more information on self-determination in the UNDRIP which can be found in the appendix.

²⁶ The nation-state model refers to a political model whereby a geographical sovereign area is formed within a territory of political, cultural and ethnic homogeneity which can be ruled as so (Lauletta, 1996).

Yet the language is non-specific and what *effective measures* or *due respect* entails is not elucidated, leaving space for the State to interpret and potentially circumvent the declaration. Furthermore, it can be argued that US patent law is State-centric, as it is a piece of domestic policy and therefore prioritizes national affairs over international concerns. However, through the language used and the positioning of other States, a clear hierarchy can be read with regards to unpublished prior knowledge classed as prior knowledge only if it is within the US. Finally, beyond the State's actions, none of the documents pertain to how corporations should or should not treat individuals. The absence of this conversation speaks volumes, as that which is not mentioned cannot be contravened. In a neo-liberal world order, multinational corporations go largely unregulated.

Discursive practice

At the discursive level, all three documents are produced from a Global North-centric perspective. The politics of representation, who speaks and where knowledge production occurs are important factors in the analysis of the discursive practice. This uniformed bias towards the Global North contributes to the hegemonic power structures embedded within the texts. Declarations of rights have often been cited for being *Western*-centric, individualist and not aligned with collective ideas of rights (Panikkar and Sharma, 2007) that reflect the values and ideologies of some indigenous communities (Hsieh, 2006). Both the US Patent Law and TRIPS have also been criticized for internationalizing a Global North perspective on trade, intellectual property and knowledge production (Yamane, 2011). Whether any of these documents adequately represent and reflect the ideas, beliefs and values of the people they aim to speak for is up for contestation, with the consensus being that these documents do harm to the Global South and vulnerable communities and individuals (Joseph, 2011). These documents are produced by international organizations, a key feature of neo-liberalism whereby soft power can be exercised internationally by politically invested interests, which are politically patriarchal spaces (Chaulia, 2011). International organizations lie across the intersection of power and ideas that are derived from the patriarchal capitalist world system (10). Furthermore, the intertextual nature of these pieces of international legislation aids their discursive power. The UNDRIP builds on recommendations from the Human Rights Council Resolution 1/2 and TRIPS is largely regarded as a piece of legislation built upon US and European patent and trade laws. The strategic goals of these documents and the discourse they create serves to reify the dominance of the Global North and maintain the oppression of the Other, specifically the indigenous Other and natural resources.

Another consideration here is that the distribution of these texts is broad; they are accessible to all, provided technology and infrastructure are at one's disposal, and they are available in many languages. As for consumption, governments, international organizations and corporations utilize these texts as a basis for doing business and politics. The discursive coercion within these texts is written about and over the lives of the indigenous Other. Although these texts provide the space for exploitation they can also be used to build legal cases to fight against biopiracy, protect indigenous knowledges and destabilize the Global North's hegemonic acts of attempted exploitation of the indigenous Other and the environment. This point will be further engaged later.

Social practice

Discourse creates a space where power and knowledge combine. In this analysis of the three pieces of US and international legislation the discourse creates a space that allows for neo-colonialism to be enacted as the Global North can move to colonize the knowledges of the indigenous Other. The third level of the analysis, the social practice, is the level where discourse affects the lived experiences of indigenous peoples. The protection of indigenous knowledge is enshrined in the UNDRIP as article 31.1 states.²⁷ On a surface level it appears that Article 31.1 ought to protect indigenous communities from acts of biopiracy committed by multinational corporations, institutions and governments based in the Global North. However, as will be shown in the following case studies, this is not always the case. The declaration discusses in various articles throughout that indigenous peoples have the right to their resources; and article 26 specifically lays this out.²⁸ Despite these clauses, the legislation remains non-legally binding (as discussed above) and therefore States can acknowledge and respect the declaration as a good will gesture, or they can fail to recognize the legislation altogether, and exploit indigenous communities, land and resources for profit without

²⁷ Article 31.1 Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions (UNDRIP, 2007: 11).

²⁸ Article 26.1 Indigenous peoples have the rights to the lands, territories and resources which they have traditionally owned, occupied or otherwise acquired. 2. Indigenous peoples have the right to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or traditional occupation or use, as well as those which they have otherwise acquired. 3. States shall give legal recognition and protection to these lands, territories and resources. Such recognition shall be conducted with the due respect to the customs, traditions and land tenure systems of the indigenous peoples concerned (UNDRIP, 2007: 10).

crediting these peoples with either economic remuneration or acknowledgement of having produced the knowledge.

This interpretable language of protection enables the neo-colonization of indigenous peoples as despite the protection enshrined in the UNDRIP, patent laws and the international TRIPS agreement circumvent this alleged protection. The potential exploitation of indigenous knowledges by multinational corporations is levied by US Patent Law and TRIPS due to narrow conceptions of novelty and prior art. Each country defines these concepts individually, giving a similar agency to States to define as is with the UNDRIP language, which can lead to conflict between different ideas of these concepts. The Global North-centrism in the patenting system and the TRIPS agreement infringe on the rights of indigenous peoples as “discourses of modernity and globalization stem from a Eurocentric understanding of geography, history and culture that have been foundational to the enterprises of imperialism and colonialism” (Tupper, 2009: 124). The Global North’s ethnocentric approach to prior art and novelty denies the validity and sovereignty of indigenous knowledges transferred through oral traditions and community collectivity. Preston Hardison, for example, views patenting to be in conflict with indigenous communal knowledge, whereby knowledge is viewed as a common, and is shared freely with an understanding of respect (2006). Moving further along these lines, indigenous communities do not share the same concepts of property, intellectual or otherwise, as the Global North does. As Hardison continues to explain, indigenous cultural beliefs cannot be discussed in the secular language of patents and intellectual property laws, as knowledge is not owned and regulated it is based on ideas such as guardianship or custodianship, not individual property rights (2006). The colonization of indigenous knowledges through acts of biopiracy, as leveraged by the linguistic interpretations of US Patent Law, not only denies indigenous peoples the rights and access to their knowledges and natural resources but also displaces and disregards their knowledge culture. Intellectual property rights represent the mobility and convertibility of resources where the resources, and the knowledge of them, become highly monetized and transnational as they are exported from their place of origin (Jaising and Sathyamala, 1994: 97-98). The beneficiaries of patents are multinational corporations, armed with these monetized versions of rights, multinational corporations have the power to appropriate indigenous knowledges, while the community these knowledges are taken from have no corresponding rights to prevent appropriation (Jaising and Sathyamala, 1994: 97). This power relation further prevents indigenous peoples from representing themselves and presenting their own knowledges, sustaining the Subject

construction of the Global North, the Global South and indigenous peoples and the power relations that accompany these constructions.

The discourse analysis undertaken in this chapter shows the way in which the process of appropriation of indigenous knowledges of biodiversity, that is biopiracy, colonizes the lives of indigenous peoples as exterior forces, for their exclusive benefit, exert control over indigenous knowledge linked to natural resources as the case studies that I will move on to next demonstrate. Successful acts of biopiracy denigrate the lives of indigenous peoples as knowledge, creativity and inventiveness is dislocated from its origin and, through the Global North's dominant scientific paradigm, re-presented as removed from indigenous peoples and in fact belonging to the appropriator. This further sediments the inferior Subject positioning placed upon indigenous peoples.

Case Studies

The following case studies illustrate instances of acts of biopiracy by multinational corporations and governments from the Global North, these case studies are the cases of neem, basmati and turmeric in India. These cases display power dynamics in action as discussed in the analysis of the legislation, they are enabled through the discourse on indigenous peoples, the environment and the space constructed for biopiracy to occur in.

Case Study One: Neem

In 1990 the US multinational, agribusiness corporation W. R. Grace and the US Department of Agriculture filed a European Patent application to the European Patent Office (EPO) with a proposal for patenting an anti-fungal product derived from the neem tree (National Academy Press, 1992). In 1994 the patent - EPO patent No. 436257 - was granted to W. R. Grace. This became a highly contested case of biopiracy that spanned over a decade.

The binomial name for the neem tree is *Azadirachta indica*, which stems from the Persian name *Azad-Darakth*, meaning, ironically, 'the free tree'. The neem tree is indigenous to the Indian subcontinent and has a long and rich cultural history in traditional and indigenous life in India and surrounding countries. The medicinal and agricultural importance of the tree is mentioned in the Vedas, ancient Hindu texts, dating back from 2000 years ago (Schuler, 2003: 161). Neem also holds spiritual importance in Hinduism and is used in various rituals. The entire tree is harvestable and used for a variety of purposes; medicine, veterinary

application, toiletries and cosmetics and in agriculture as a repellent and fungicide (Bullard, 2005). Neem is a staple resource for many indigenous people living on the Indian subcontinent and used on a daily basis. Traditional knowledge and use of the plant has circulated orally, in many regional languages, for centuries. Widely assumed to be a commons; a cultural or natural resource accessible to all of society that cannot be owned privately, the patent application in the 1990's became extremely controversial as indigenous communities saw their resource and knowledge being appropriated without any discussion.

In 1994 the patent granted to W. R. Grace was appealed by three women; Magda Alevoet, the President of the Green Group in the European Parliament, Dr. Vandana Shiva, representing the New Delhi Research Foundation for Science, Technology, and Natural Resource Policy, and Linda Bullard, the President of the International Federation of Organic Agriculture Movements (IFOAM). They based their appeal case upon the patent being neither inventive nor novel which directly contradicts patent laws in both the US and Europe. Shiva states regarding the patent, "[i]t was pure and simple piracy. The oil from the neem has been used traditionally by farmers to prevent fungus. It was neither a novel idea nor was it invented" (Shiva, cited in Singh 2013: 10). The fungicidal properties of the neem plant had been used in agriculture by indigenous communities in India for hundreds of years (Bullard, 2005), they argued in their appeal of the patent.

After a further contestation by W. R. Grace and the US Department of Agriculture on the grounds that there is no prior art or publication in India regarding this use of the Neem tree, several years later the patent was revoked. However, there remains over 126 patents regarding the neem tree, most of which belong to multinational corporations from the Global North (Singh, 2013: 9).

Case Study Two: Basmati

Basmati rice has grown in the foothills of the Himalaya's for thousands of years and is synonymous with Indian and Pakistani food culture. Rice is central to diet and life on the Indian subcontinent, vital for food security and nourishment. Basmati rice has been nurtured through agriculture for centuries with selective cross breeding to create a resistant and uniquely flavoured rice. Indian and Pakistani indigenous knowledge has been employed to create a variety of Basmati rice that forms a key part of India and Pakistan's export economy (Reuters, 2014).

In 1997 the US Patent and Trademarks Office granted patent 5663484 to the American multinational corporation RiceTec Inc. for various Basmati rice lines and grains. RiceTec were granted patents to several 'Basmati' rice's grown outside of the Indian subcontinent. The patent gave RiceTec various rights including the exclusive use of the name 'Basmati', a monopoly on breeding 22 indigenous basmati varieties from India and Pakistan with any other varieties in the Global North as well as property rights on the seeds and grains from cross breeding (RAFI, 1998: 1). RiceTec claimed that they fulfilled the novelty criteria for patenting as through crossbreeding Basmatic rice from India and Pakistan with other lines they have created different and superior grains (Gupta, 1998).

The Indian government immediately disputed this patent and the case became known as the India-US Basmati Rice Dispute. The patent holds the potential to do great damage to Indian and Pakistani rice farmers as the US State, with the aid of the patent, would be able to dominate trade due to economic superiority. The appropriation of the name Basmati also denies indigenous communities access to their agricultural knowledge as they would no longer be legally allowed to use it for the rice they have nurtured and harvested for centuries. RiceTec unjustly attempted to appropriate resources from the Global South within a legal framework that threatens the rights of the indigenous communities that have possessed knowledge of Basmati rice for centuries. In this case, the Global North, represented here as RiceTec and the US Patenting office as a State body, colonize indigenous knowledge, export it back to the technologically advanced Global North in a one-way flow of resources and knowledge for the exclusive benefit of the Global North and to the detriment of indigenous communities in the Global South who rely on selling rice for financial security. This appropriation and re-branding of Basmati denies the indigenous knowledge, creativity and contribution.

The patent was appealed in 1997 on the grounds of the Geographical Indication Act (Article 22) under the TRIPS declaration (Acharya, 2001). This act states that a sign, name or logo must be displayed to indicate that the item corresponds to a specific geographical region, which therefore means the item has specific qualities attached to it, such as Basmati rice from the Indian subcontinent. As RiceTec deny that their lines of Basmati rice are the same as, or derived from, Indian or Pakistani Basmati, they did not wish to display the GI, this directly conflicts with the Act as the RiceTec Basmati does originate and must be displayed as doing so. After a patent battle that last two decades, RiceTec withdrew 15 of its claims, however, 5 still remain showing the hegemonic power of the Global North.

Case Study Three: Turmeric

Turmeric plays a central role in cultural life in India and has a wide variety of purposes and uses. It is commonly used in cooking, routinely used to cure a list of ailments and used often in beauty regimes across India. Turmeric is used in Hindu ceremonies, such as weddings and worship. It symbolizes pride, prosperity and purity and plays an important role in India culture (Ravindran, Babu and Sivaraman, 2007).

In 1995 two expatriate Indians at the University of Mississippi Medical Centre were granted a patent for turmeric to be used for healing wounds. The patent (U.S. Patent 5,401,504) gave them the exclusive rights to sell and distribute turmeric for this purpose. Two years after the patent was granted, India's Council of Scientific and Industrial Research challenged the University's claim to the discovery of turmeric for this purpose. The patent was revoked after a legal battle that was won by providing evidence of prior art in India of turmeric for this purpose to prove that the patent did not meet the requirement of the novelty, non-obviousness and utility clause in US Patent Law. Prior art in the form of ancient ayurvedic texts was provided to appeal the patent. The protest, that this application of turmeric was not novel, was supported by hundreds of years of the use of turmeric in this way, accompanied by widely known societal acceptance of its use for these purposes. The patent was revoked, yet it still stood for 2 years despite the mass societal knowledge of turmeric's medicinal properties (Lipika, 2003).

The patenting of turmeric represents several threats to indigenous knowledges and the lived experiences of indigenous peoples. The patenting of resources for pharmaceutical purposes has serious and vast damaging potential on global health as millions of people would be unable to financially access the *drug* in this way, when previously using turmeric for this purpose was free and local.²⁹ This would also create a vast economic shift, whereby knowledge is exported by the Global North, re-presented and commercialised, and then sold back to the Global South through licensing laws (Slack, 2004). Shiva (1997) accuses the *West* of using patent laws to 'rob' the Global South, she claims that if the contribution of the *Third World* peasants and tribals were taken into account, the US owes over \$5 billion in royalties for pharmaceuticals to *Third World* countries.

²⁹ The shift in terminology from a natural resource to a drug is significant as it reconstitutes a substance that is readily available in nature for all to use to something that can be capitalized and attributed to a higher economic value and scientific worth.

Chapter Four: Discussion

Elucidation

Using critical discourse analysis with a postcolonial ecofeminist theoretical approach enabled me to explore the relations between discourse and lived experiences in the case of biopiracy and indigenous peoples. The analysis of the pieces of legislation show that the rhetoric used throughout serves simply as rhetoric. The legislation does not protect indigenous communities from biopiracy, as the case studies show, but instead creates further ground for these acts to be committed. The case studies exemplify acts of biopiracy, through the support of international legislation that supports certain practices enacted via the Global North via its economic interests in the resources and knowledges of indigenous peoples in the Global South. Oppression is enacted through biopiracy as the hierarchical dynamic between indigenous peoples and the Global North marginalizes the former.

However, despite acts of biopiracy still occurring, patents and appropriation can be fought against using the legislation, as has been exemplified by the over turning of some patents discussed in the case studies of neem, basmati and turmeric. The legal battles won against the Global North show that the Global South is not simply a victim. It is the case that, despite several patents being revoked after legal battles, many do still stand. However, the fact that legal battles ensue and are won through proving prior knowledge of the resource shows the overly zealous approach the Global North has in appropriating indigenous knowledges and the assumed superiority the Global North feels it has over the Global South. This points to the geopolitically comfortable positioning the Global North assumes and the Subject construction it creates for the indigenous Other, who is framed in such a way to reify the Global North. When in actual fact the colonization of indigenous knowledges suggest a destabilization of this. The knowledges of the constructed inferior and knowledge-less indigenous Other is destabilized through this flow of knowledge to the constructed knowledgeable Global North. For if the knowledge of the indigenous Other is meaningless, why would appropriation occur? Here we can see Plumwood's Master model being destabilized as Subject constructions no longer adhere to dualized categories.

The discourse reveals the feminization and naturalization of the indigenous Other and the resources through which their knowledges are drawn this creates a systematic foundation for the appropriation of indigenous knowledges of natural resources for the exclusive benefit of

privileged elites in the Global North as displayed through the biopiracy cases of neem, basmati and turmeric. These elites are multinational corporations such as W.R. Grace in the case of neem, RiceTec in the case of basmati and institutions such as the University of Mississippi in the case of turmeric. Nevertheless, the construction of indigenous Subjects in the legislation, for example, appears paradoxical to the privileging by corporations of indigenous knowledges that is also taking place. In the case studies recounted in the previous chapter, the Global North seeks the knowledges of the indigenous Subject, which is then appropriated, patented and commercialized. Notions of primitivism are destabilized in this paradox through the actions of scientific bodies from the Global North seeking the knowledges of the *natural* Other of the Global South. Once biopiracy is deconstructed the construction of primitivism is revealed, exposing the value of local expertise and specific knowledges. Nevertheless, oppression remains a defining feature in this one-way exchange, the indigenous Other's Subject construction endures this process due to the modest witness paradigm (Haraway, 1997) and the dominating capacity of multinational corporations. Spivak comments on this relation as follows: "This S/subject, curiously sewn together into a transparency by denigrations, belongs to the exploiters side of the international division of labour" (Spivak, 2010: 35). Here the indigenous Subject's position is constructed for strategic economic purposes. In this discourse, the neo-colonial and corporate power of the Global North, enacted by multinational corporations and institutions, maintains the paradigm of privileged *Western* science complimented with a desire for private property and mass profit that is successful in marginalizing and exploiting of all that stands outside of these normative capitalist ideals (Shiva, 1989). Neo-liberal international institutions such as the World Trade Organization (WTO) sanction economic exploitation of natural resources in the Global South in favour of corporate interests. In this process, corporate interests, with collaboration of international institutions, governments and the mass media, succeed in oppressing the indigenous Other in order to maintain the capitalist system. Again, however, we see that the relationship is a paradoxical one. Without oppression of the Other capitalism cannot function (Marx, 1848). There is a structural dependence between the Global North and South that complexifies the constructed relation between the two. Plumwood discusses in the Master model how the subjugated Subject in the binary must be framed as inessential to the Master, this can be seen actively working in the construction of the Global South and indigenous peoples. If indigenous knowledges are no longer viewed as inessential and juvenile through the analytical exposure of this myth through the privileging and appropriating of these knowledges by the Global North the Master model is destabilized.

Globalization has become the site of neo-colonialism as the discourse analysis of the legislation exemplifies through the privileging of patents and commodification of nature and knowledge. Addressing globalization is extremely difficult, given that overthrowing global capitalism is no easy feat considering the vast international invested interest in maintaining profit through exploitative practices (Shiva, 1989). Globalization has the most damaging effects on those hyper-oppressed; the subaltern and indigenous women. These Subjects are acutely exposed to and affected by the degradation of the environment, regular occurrence of wars, famines and the de-regulation of governments and institutions, the discourse analysis revealed that international legislation does not work to create protection from this. For these reasons Mohanty argues for a feminism without borders and beyond borders to address the huge injustice of international capitalism (Mohanty, 2003A: 514). Borders induce binary thinking; *us/them, nature/culture, modernity/primitivism*: a binary thinking (of nature and culture) that has impoverished our knowledge practices (Tuana, 2004: 208). And binary thinking at large has impeded upon a pursuit of transnational solidarity (Mohanty, 2003). New ways to create understanding must be found with regards to addressing the hierarchical structure of the nature/culture distinction, and for Haraway, all Subjects must participate in this new meaning making:

“We must find another relationship to nature besides reification, possession, appropriation, and nostalgia. No longer able to sustain the fictions of being either subjects or objects, all the partners in the potent conversation that constitute nature must find a new ground for making meanings together” (Haraway, 2008: 158).

With this proposed new embodied and enacted discourse the damages of the nature/culture bifurcation can be unsettled. The nature culture binary has after all been strategically deployed to essentialize gendered bodies, so without this dualized mode of thought progressing beyond the damages created by binary thinking is possible. Shiva believes that if we take nature as political, intelligent and resistant we do not need to sever the connection between nature and culture we can instead recognize this necessary connection between the human and the natural (Shiva, 1994: 4). Plumwood similarly agrees with Shiva’s argument of reconfiguring meaning through reconfiguring how we view nature. Plumwood states that overcoming a dualism cannot eradicate difference, but how we approach and utilize the difference between nature and culture is where transformation can occur. She continues to argue that the expulsion of the Master identity requires instead a

replacement with something less hierarchal, more democratic and with a plural identity that adheres to values of care (Plumwood, 1993: 189). A shift in discourse accompanied by these values of care, the indigenous Other and the environment would no longer be so easily subjugated.

Focusing on *non-Western* modernities, for example, alternative modes of knowledge production, can help to unsettle problematic binaries created in the Global North context and assist in destabilizing its dominance in dualist discourse (Shome, 2012: 203). The colonization of indigenous knowledges shows the contingency of nature and culture, the natural and the scientific, and bringing awareness to the discourses that support these practices can help to destabilize binary thinking that leads to oppression of the indigenous Other. This intermingling of previously dualized positions shows that the relationship is more complex than the literature, in particular Plumwood, suggested, there is reliance on the Global South from the Global North, a dependency on the indigenous Subject and the environment without which the Global North would not be in the same position of power. The dualist logic currently instrumentalized cannot be sustained, as the Subject construction of both identities is contingent upon the other. This opens up space for change as different relations and ways of constructing meaning are revealed. This is not to say that reversing the binary, or shifting the gaze, by reifying indigenous societies provides a solution. Uncritical regionalism (Spivak, 2008) or a romanticization of the Other (Haraway, 1988) is not beneficial here as violations of gender, class, religion, sexuality and so forth are at play within these societies too. However, being attentive to non-dominant societies “will allow for new alliances to decolonize dominant political and academic imaginations and re-engage suppressed histories through presenting them through new political and intellectual energies” (Shome, 2012: 207). Working towards a more participatory approach will allow for alternative modes of knowledge production to come to emerge.

Countering Biopiracy

In response to biopiracy, motivated specifically by the cases discussed in this thesis, India has created the Traditional Knowledge Digital Library (TKDL) (TKDL, 2001). This online database is working to protect indigenous knowledges from the colonialist patenting ambitions of the Global North by documenting knowledge of medicinal plants, minerals and resources and their medicinal or otherwise productive uses. Indigenous knowledge is translated from indigenous languages into English and made accessible online. This way

‘prior art’ is documented so patenting offices in the Global North can cross-reference proposed patents with existing knowledges to check the novelty clause applies, which would render them unable to commit acts of biopiracy from the outset. The TKDL begins to create a new discourse, and the transformational capacity of discourse can be enacted in this way. It is of vital importance that indigenous peoples write their own culture and document knowledges as both are skewed through re-presentation and appropriation. As I have established within this thesis, the power of re-presentation through dominant Global North-centric structures has damaging effects on those it re-presents. This ability to re-present is due to the complex nexus of power and knowledge involving the Global North and indigenous communities, a complexity that Foucault (1977: 27) explains thus: “there is no power relation without the correlative constitution of a field of knowledge, nor any knowledge that does not presuppose and constitute at the same time power relations”, Recapturing knowledge and power is necessary to reconfigure the colonization of indigenous knowledges, the TKDL shows this and demonstrates that where there is power there is also resistance (Foucault, 1978: 95) regardless of attempted suppression. The creation of the TKDL destabilizes the victimization of the Global South and indigenous communities and allows for agency to come into play with regards to fighting against biopiracy as those managing the database in the Global South document their own knowledges. Despite the benefits of this method of mapping indigenous knowledges which can prevent biopiracy from occurring, it can be seen as problematic as it pushes indigenous traditions of sharing knowledges orally and in indigenous languages to conform to Global North-centric modes of recording, sharing and using knowledges.

Although a discourse of culpability has been instated throughout this thesis whereby the Global North is culpable, the counter actions of indigenous communities and legal battles won by the Global South destabilize the victim/perpetrator trope. This trope is strongly taken up in the literature, particularly in the ecofeminist literature. It is argued here that culpability cannot be easily located in a single body as it breathes through language and discourse. Indigenous communities and the Global South recapture their agency in response to the actions of multinational corporations in the Global North. This victimization is further debunked in possible instances where indigenous communities willingly share their knowledges for economic benefit (Shiva, 1997).³⁰ This is plausible, however one could question the

³⁰ This point was not explored within this thesis due to size constraints, and could be a separate line of inquiry for future investigations.

motives behind such a move and whether the economic constraints of globalization on the lives of indigenous peoples push these actions.

Reflection

The critical discourse analysis conducted in chapter three produced several fruitful links that bridge the theory discussed in chapters one and two and the perceived practice of colonizing indigenous knowledges through biopiracy. In chapters one and two both the literature and my personal stance locates culpability with the Global North. However, this delegitimizes the Global South and indigenous Subjects which was not my intention with this thesis. Connections between theoretical perceptions and practice are not always as easily formulated as they are understood from ones own standpoint. There is no way of getting outside of yourself and your own ideas whilst conducting research, your viewpoints are always situated in you own knowledges and beliefs. On methodological reflection, I believe the connections between the theory and research were not as pronounced as I has assumed, yet this created critical space to open up for further complexity and reflection on the issues discussed.

Conclusion

Throughout this exploration of the colonization of indigenous knowledges through acts of biopiracy I have attempted to display how the Global North and its knowledge, science and wealth are the beneficiaries of the colonization of indigenous peoples (Smith, 2012: 118). The conditions for this exploitative relationship to occur in are carefully curated by a discourse of dominance, this discourse is supported by the legislation discussed and exemplified through the critical discourse analysis in chapter three and four. This discourse positions everything into binaries in order to maintain its superiority and control. Binaries such as male/female, nature/culture, modernity/indigeneity serve to create a grounds for acts of domination by the more privileged of the binary and their acts of domination, as was extensively discussed in chapter one. Such binaries create vast amounts of pain to both people and planet everywhere in a multitude of situations, the acts of biopiracy and the subject construction of indigenous peoples discussed here being just one example. The colonization of indigenous knowledges shows the Global North asserting it's dominance over and against the indigenous Other, culture over nature, masculine over the feminine, modernity over indigeneity. The force of colonialism has been described as the rape of indigenous people and of nature because of their structural similarity (Gaard, 1997: 130). Biopiracy as neo-colonialism may not include sexual violence however the cultural and economic strangulation acts as a more subtle and covert form of violence hidden from the international arena.

However, the emergence of the TKDL shows resistance to this colonization. The act of biopiracy itself displays the true value of indigenous knowledges and nature, to which this knowledge attends, as that which is appropriated and commercialized is of high value, both in terms of knowledge and profit for the Global North. Destabilization of existing binaries occurs here. The TKDL and legal battles won against biopiracy dislodge the idea of the indigenous Subject and/or Global South as a victim unable to represent their own agency. The nature culture binary is dislodged in the act of biopiracy as nature is shown to be intelligent and of value. This destabilizes the assigned qualities given to nature as nature now comes to represent qualities attributed to culture by discourse. Destabilizing such binary thinking is of upmost importance in pursuing equality for all and environmental justice, debunking myths surrounding nature and culture can aid this process. The world is in crisis, wars against the Other and the environment are being waged in the name of modernity and civilization. Destabilizing binaries, disrupting the equation of modernity and the Global North equals

worldwide enlightenment and showing how nature and culture are constructed as two separate entities when in fact they embody and intertwine with one another, are necessary for a more peaceful global existence.

Biopiracy as an act of colonization of indigenous knowledges poses a threat to the lives of indigenous peoples on a symbolic and material level. The lived experience of indigenous peoples was adversely affected by the paradigm shift in agriculture, the green revolution, which led to farming no longer being viewed as an earth nurturing process to provide sustenance for those who depended on it to a masculinist approach where farming is equated with export and profit (Shiva, 1989: 97). Taking a scientific, corporate, production-focused approach to agriculture and resources, such as those discussed in the biopiracy case studies in chapter three, shifts the control of the food system and natural environment from indigenous communities to multinational corporations. The patenting and commercialization of resources creates economic deprivation and disconnects indigenous communities with their resources and food. Capitalist approaches to nature leads to the encroachment of local decision-making and local control of processes with regards to resources. Multinational corporations working in this manner reproduce colonialism, gender norms and the class system whilst intensifying local inequalities (Omvedt, 1994: 101). This approach to the environment erodes centuries worth of indigenous knowledges of land, resources and food, and reduces that knowledge to a homogenized reductionist pattern that damages the environment and those who depend on it. A commercialized approach to nature does not have the best interests at heart with regards to conservation, food security and preventing environmental damage. “The localities of third world communities have been pillaged, resourced and outsourced, as well as polluted and degraded in the process of globalization; ‘cosmopolitanism’ accrue primarily to the urban elites who benefit from globalization” (Gaard, 2010: 12) be they in the Global North or the Global South.

The act of colonizing indigenous knowledges through biopiracy exhibits the complex power nexuses and representational discourses that produce and reduce Subjects in order to allow for exploitation to occur. This thesis contributes to discussions of biopiracy by providing a different perspective to analyse the situation from. An alternative nuance embellishes arguments against biopiracy and is therefore instrumental in alleviating oppression of indigenous peoples and the environment. We must acknowledge nature and those with the knowledges of it as being diverse with great capacity to sustain life. Tackling the issue of nature and the natural in a feminist praxis must be done without fear of

excommunication. Relations between people, place and nature should be maintained, for a whole-earth way of thinking has the capacity to combat the large-scale damaging effects globalization (Gaard, 2010: 13) has on vulnerable individuals and the environment.

Bibliography

- Acharya, R (2001) *Food Fight: RiceTec & Basmati Rice Patents*
<http://ipfrontline.com/2001/09/food-fight-ricetec-basmati-rice-patents/> (Online) (Accessed 20/5/2015)
- Agamben, G (2005) *State of Exception* University of Chicago Press, London
- Appadurai, A (2001) *Grassroots Globalization and the Research Imagination in: Globalization* Appadurai, A (eds) Duke University Press, Durham
- Bautista, L (2007) *Bioprospecting or Biopiracy: Does the TRIPS Agreement Undermine the Interests of Developing Countries?* In: *Philippine Law Journal* Vol 82 No 1 pp: 14-33
- Bender, E, K (2003) *North and South: The WTO, TRIPS and the Scourge of Biopiracy in: Tulsa Journal of Comparative and International Law* Vol 11 No 1 pp: 281-319
- Brockway, L, H (1988) *Plant Science and Colonial Expansion: The Botanical Chess Game in: Seeds and Sovereignty: The Use and Control of Genetic Resources* Kloppenburg, J, R (eds) Duke University Press, New York
- Bullard, L (2005) *Freeing the Free Tree. A Briefing Paper on the Neem Biopiracy Case*
<http://www.nwrage.org/content/freeing-free-tree-briefing-paper-neem-biopiracy-case> (Online) (Accessed 1/5/2015)
- Burger, J (1990) *The Gaia Atlas of First Peoples* Gaia Books, London
- Butler, J (2008) *Sexual Politics, Torture and Secular Time in: The British Journal of Sociology* Vol 59 No 1 pp: 1-23
- Campbell, A (2008) *New Directions in Ecofeminist Literary Criticism*. Cambridge Scholars Publishing, Cambridge
- Castellino, J and Gilbert, J (2003) *Self-Determination, Indigenous Peoples and Minorities in: Macquarie Law Journal* Vol 3 pp: 155-178
- Champagne, D (2005) *Indigenous identity and the State in: Indigenous Peoples and the Modern State* Champagne, D, Torjesen K, J and Steiner, S (eds) Alta Mira Press, California
- Chaulia, S (2011) *International Organizations and Civilian Protection: Power, Ideas and Humanitarian Aid in Conflict Zones* Palgrave Macmillan, London
- Collins, P, H (1991) *Black Feminist Thought: Knowledge, Consciousness and the Politics of Empowerment* Routledge, New York
- Connell, R (2007) *Southern Theory: The Global Dynamics of Knowledge in Social Science* Polity Press, Cambridge

- Crenshaw, K (1989) Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics in: *Feminism in the Law: theory, Practice and Criticism* The University of Chicago, Chicago
- de Beauvoir, S (1972) *The Second Sex* trans. H. M. Parshley Vintage, New York
- Derrida, J (1982) *Positions* (translated by Bass, A) Chicago University Press, Chicago
- Derrida, J (1988) *Limited Inc* Northwestern University Press, Illinois
- Douglas, M (1996) *Natural Symbols* Cressett Press, London
- Dussel, E (1995) *The Invention of the Americas: Eclipse of 'the Other' and the Myth of Modernity* Continuum, New York.
- Fanon, F (1961) *The Wretched of the Earth* Grove Press, New York
- Fairclough, N (1992) *Discourse and Social Change* Polity Press, Cambridge
- Fairclough, N (1993) Critical Discourse Analysis and the Marketization of Public Discourse: the Universities in: *Discourse and Society*, Vol 4 No 2 pp: 133–68
- Fairclough, N (1995) *Media Discourse* Edward Arnold, London
- Foucault, M (1972) *The Archaeology of knowledge* Pantheon Books, New York
- Foucault, M (1977) *Discipline and Punishment: The Birth of the Prison* Trans Sheridan, A Vintage Books, New York
- Foucault, M (1978) *The History of Sexuality* Vintage Books, New York
- Foucault, M (1980) *Power/Knowledge: Selected Interviews and Other Writings 1972-1977* Pantheon Books, New York
- Foucault, M (1990) *The History of Sexuality. An Introduction* Volume 1. Translated by Hurley, R Vintage Books, London
- Gaard, G (1997) Toward A Queer Ecofeminism in: *Hypatia* Vol 12 No 1 pp: 114-137
- Gaard, G (2004) Towards a Queer Ecofeminism in: *New Perspectives of Environmental Justice: Gender, Sexuality and Activism* Stein, R (eds) Rutgers, New Jersey
- Gaard, G (2010) New Direction for Ecofeminism: Towards a More Feminist Ecocriticism in *Interdisciplinary Studies in Literature and Environment* Vol 0 Number 0 pp: 1-23
- Gaard, G (2011) Eco-feminism Revisited: Rejecting Essentialism and Re-Placing Species in a Material Feminist Environmentalism in *Feminist Formations* Vol 23 No 2 (Spring) pp: 26-53
- Garcia, J (2007) Fighting Biopiracy: The Legislative Protection of Traditional Knowledge in: *Berkeley La Raza Law Journal* Vol 18 pp: 5-28
- Grosz, E (1994) *Volatile Bodies: Toward a Corporeal Feminism* Allen and Unwi, Sydney

- Gupta, V, K (1998) Basmati Rice Lines and Grains – Gist of the US Patent No 5663484 in: *Journal of Intellectual Property Rights* Vol 3 May pp: 127-137
- Hall, S (1996) When Was ‘The Post-Colonial’? Thinking at the Limit in: *The Post-Colonial Question* Chambers, I and Curti L (eds) Routledge, London
- Haraway, D (1997) Modest_Witness@Second_Millennium in: *Modest_Witness@Second_Millennium.FemaleMan@_Meets_OncoMouse™: Feminism & Technoscience* Routledge, New York pp: 23-40
- Haraway, D (1988) Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective in: *Feminist Studies* Vol 14 No 3 pp: 575-599
- Haraway, D (2008) *Otherworldly Conversations, Terrain Topics, Local Terms* in: Stacy Alaimo and Susan Hekman (eds) *Material Feminisms* Indiana University Press, Bloomington pp:157 – 187
- Harding, S (1998) Voyages of Discovery in: *Is Science Multicultural? Postcolonialisms, Feminisms and Epistemologies* Indiana University Press, Indiana
- Hardison, P (2006) *Indigenous People and the Commons* <http://wo.ala.org/tce/wp-content/uploads/2008/10/ip-and-the-commons.pdf> (Online) (Accessed 5/6/2015)
- Harvey, D (2005) *A Brief History of Neoliberalism* Oxford University Press, Oxford
- hooks, b (1989) *Talking Back: Thinking feminist, Thinking Black* South End Press, New York
- Hsieh, J (2006) *Collective Rights of Indigenous Peoples: Identity-Based Movement of Plain Indigenous in Taiwan* Routledge, New York
- Jacobs, J, M (2003) Earth Honouring: Western Desires and Indigenous Knowledges in: *Feminist Postcolonial Theory: A Reader* Lewis, R and Mills, S (eds) Edinburgh University Press, Edinburgh pp 667 – 691
- Jaising, I and Sathyamala, C (1999) Legal Rights... and Wrongs: Internationalizing Bhopal in: *Close to Home: Women Reconnect Ecology, Health and Development* Shiva, V (eds) Earthscan Publications, London
- Jay, N (1981) Gender and Dichotomy in: *Feminist Studies* Vol 7 No 1 pp: 38-56
- Jorgensen, M and Phillips, L, J (2002) *Discourse Analysis as Theory and Method* Sage, London
- Joseph, S (2011) *Blame in on the WTO?: A Human Rights Critique* Oxford University Press, Oxford
- Kaplan, T (2006) Final Reflections: Gender, Chaos, and Authority in Revolutionary Times in: *Sex in Revolution: Gender, Politics and Power in Modern Mexico* Duke University Press, Durham
- Kaur, G (2012) Postcolonial Eco-feminism , Women and Land in Kamala Markandaya’s Nectar in a Sieve in: *International Journal of Humanities and Social Science* Vol 2 No 21 pp: 100-110

- Kristeva, J (1986) *Word, Dialogue and Novel* in: The Kristeva Reader T. Moi (eds) Blackwell, Oxford
- Kirby V and Wilson, E (2012) Feminist Conversations with Vicki Kirby and Elizabeth A. Wilson in: *Feminist Theory* Vol 12 No 2 pp: 227-234
- Lauletta, M (1996) Political Realism
<http://www.towson.edu/polsci/ppp/sp97/realism/REALISM.HTM> (Online) (Accessed 19/5/2015)
- Lazar, M (2005) *Feminist Critical Discourse Analysis: Gender, Power and Ideology in Discourse* Palgrave Macmillan, London
- Lazar, M, M (2007) Feminist Critical Discourse Analysis: Articulating a Feminist Discourse Praxis in: *Critical Discourse Studies* Vol 4 No 2 pp: 141-164
- Lazarus, N (2011) What Postcolonial Theory Doesn't Say in: *Race and Class* Vol 53 No 1 pp: 3-27
- Lee, R and Balick, M, H (2001) *Ethnomedicine: Ancient Wisdom for Contemporary Healing* in: *Alternative Therapies in Health and Medicine* Vol 7 No 3 pp: 28-30
- Levitt, J (2015) *Black Women and International Law* Cambridge University Press, New York
- Lipika (2003) *Traditional Knowledge and Intellectual Property: Case of Turmeric* 24/10/2013 <http://lifeintellect.com/blog/2013/10/24/traditional-knowledge-and-intellectual-property-case-of-turmeric/> (Online) (Accessed 2/4/2015)
- Lorentzen, E (2003) *Eco-feminism and Globalization: Exploring Culture, Context, and Religion* Rowman and Littlefield Publishers, Maryland
- Marx, K and Engels, F (1848) *The Manifesto of the Communist Party* Progress Publishers, Moscow
- Mbembe, A (2003) Necropolitics in: *Public Culture* Vol 15 No 1 pp: 11-40
- McClintock, A (2009) Paranoid Empire: Specters from Guantanamo and Abu Ghraib in: *Small Axe* Vol 12 No 1 pp: 50-74
- Memmi, A (1965) *The Colonizer and the Colonized* Beacon Press, Boston
- Michael, M, C (1996) *Feminism and the Postmodern Impulse: Post-World War 2 Fiction* State University of New York Press, Albany
- Moschini, G (2004) *Intellectual Property Rights and the World Trade Organization: Retrospects and Prospects* Iowa State University Centre for Agricultural and Rural Development Publications, Iowa
- Mohanty, C, T (2003) *Feminism Without Borders: Decolonizing Theory, Practicing Solidarity* Duke University Press, Durham

- Mohanty, C, T (2003A) 'Under Western Eyes' Revisited: Feminist Solidarity through Anticapitalist Struggles in: *Signs Journal of Women in Culture and Society* Vol 28 No 2 pp: 499-535
- Mukherjee, P (2006) Surfing the Second Waves: Amitav Ghosh's Tide Country in: *New Formations* No 56 No 144 pp: 144-157
- National Academy Press, (1992) *Neem, A Tree for Solving Global Problems* National Academy Press, Washington
- Omvedt, G (1994) Green Earth, Women's Power, Human Liberation: Women in Peasant Movements in India in: *Close to Home: Women Reconnect Ecology, Health and Development* Shiva, V (eds) Earthscan Publications, London
- Ortner, S, B (1974) Is Female to Male as Nature is to Culture? in: *Woman, Culture, and Society* Stanford University Press, Stanford pp: 68-87
- Panikkar, R and Sharma, A (2007) *Human Rights as a Western Concept* D.K. Printworld, Michigan
- Prasad, P, H (1996) Dynamics of Neo-Colonial Exploitation in: *Economic and Political Weekly* Vol 31 No 12 pp: 719-722
- Plumwood, V (1993) *Feminism and the Mastery of Nature* Routledge, London
- RAFI, (1998) "Basmati Rice Lines and Grains" <http://www.rafi.ca/genotypes/980401basn.html> (Online) (Accessed 17/5/2015)
- Ravindran, P, N, Babu, K, N and Sivaraman, K (2007) *Turmeric: The Genius Curcuma* CRC Press, Florida
- Reuters (2014) *India's Rice Output, Exports to Climb on Revival of Monsoon* 18/9/2014 <http://in.reuters.com/article/2014/09/18/india-rice-output-idINKBN0HD0IO20140918> (Online) (Accessed 20/7/2015)
- Said, E (1978) *Orientalism* Penguin, New Delhi
- Said, E (1994) *Culture and Imperialism* Random House, London
- Sarma, L (1999) Biopiracy: Twentieth Century Imperialism in the Forms of International Agreements in: *Temple International and Comparative Law Journal* Vol 13 pp: 107-136
- Satre, J, P (2001) *Colonialism and Neo-colonialism* Routledge, New York
- Schuler, P (2003) Biopiracy and Commercialization of Ethnobotanical Knowledge in: *Poor People's Knowledge: Promoting Intellectual Property in Developing* Finger, M, J and Schuler, P (eds) Countries Oxford University Press, Oxford
- Shah, A (2002) *Food Patents – Stealing Indigenous Knowledge?* <http://www.globalissues.org/article/191/food-patents-stealing-indigenous-knowledge> (Online) (Accessed 1/6/2015)
- Shiva, V (1989) *Staying Alive: Women, Ecology and Development* Zed Books, London

- Shiva, V (1993) *Monocultures of the Mind* Palgrave Macmillan, London
- Shiva, V (1994) Introduction: Women, Ecology, Health: Rebuilding Connections in: *Close to Home: Women Reconnect Ecology, Health and Development* Shiva, V (eds) Earthscan Publications, London pp: 1-9
- Shiva, V (1997) The Turmeric Patent is Just the First Step in Stopping Biopiracy <http://www.twinside.org.sg/title/tur-cn.htm> (online) (Accessed 1/3/2015)
- Shiva, V (1997) *Biopiracy: The Plunder of Nature and Knowledge* South End Press, Cambridge
- Shohat, E (1992) Notes on the “Post-Colonial” in: *Third World and Post-Colonial Issues* Vol 31/32 pp: 99-113
- Shome, R (2012) *Asian Maternities: Culture, Politics and Media* in: *Global Media and Communication* 8 (3) pp: 199-214
- Simpson, L, R (2004) Anticolonial Strategies for the Recovery and Maintenance of Indigenous Knowledge in: *The American Indian Quarterly* Vol 28 No 3&4 pp: 373 – 384
- Singh, A (2013) *Intellectual Property Rights (IRP) and Traditional Knowledge Protection of India* <http://www.slideshare.net/AbhishekSingh337/intellectual-and-traditional-knowledge-of-india-ppt> (Online) (Accessed 20/5/2015)
- Smith, L, T (2012) *Decolonizing Methodologies: Research and Indigenous Peoples* Zed Books, London
- Slack, A (2004) *Turmeric TED Case Studies* <http://www1.american.edu/ted/turmeric.htm> (Online) (Accessed 20/5/2015)
- Spivak, G, C (1987) *In Other Worlds: Essays in Cultural Politics* Meuthen, New York
- Spivak, G, C (2010) Can the Subaltern Speak? In: R. C. Morris (ed) *Can the Subaltern Speak: Reflections on the History of an Idea* Columbia University Press, New York pp: 21-76
- Tamale, S (2011) *Researching and Theorizing Sexualities in Africa in African Sexualities: A Reader* Pambazuka Press, Cape Town
- Taylor, J (2014) *A Commons Sense* <http://cargocollective.com/thesourceblog/A-Commons-Sense> (Online) (Accessed 23/5/2015)
- TKDL (2001) <http://www.tkdl.res.in/tkdl/langdefault/common/Home.asp?GL=Eng> (Online) (Accessed 5/5/2015)
- Tuana, N. (2004) Coming to Understand: Orgasm and the Epistemology of Ignorance in: *Hypatia* Vol 19 No 1 pp: 194 – 213
- Tupper, K (2009) *Ayahuasca Healing Beyond the Amazon: The Globalization of a Traditional Indigenous Entheogenic Practics* in: *Global Networks: A Journal of Transnational Affairs* Vol 9 No 1 pp: 117-136

UN Press Release (2007) *General Assembly Adopts Declaration on Rights of Indigenous Peoples; 'Major Step Forward' Towards Human Rights For All, Says President*
<http://www.un.org/press/en/2007/ga10612.doc.htm> (Online) (Accessed 1/5/2015)

Warren, K. J (2000) *Ecofeminist Philosophy: A Western Perspective on What it is and Why it Matters*, Rowman & Littlefield, New York

Wilmer, E (1993) *The Indigenous Voice in World Politics* Sage, California

Wilson, H (1997) Rethinking Kant from the Perspective of Ecofeminism in: *Feminist Interpretations of Immanuel Kant* Schott, R, M (eds) Pennsylvania University Press, Pennsylvania

Whitt, L (2009) *Science, Colonialism, and Indigenous Peoples* Cambridge University Press, New York

Yamane, H (2011) *Interpreting TRIPS: Globalisation of Intellectual Property Rights and Access* Hart Publishing, Oxford

Yuval-Davis, N (1992) *Nationalism, Racism and Gender Relations* Working paper series No 130

Appendix

US Patent Law http://www.uspto.gov/web/offices/pac/mpep/consolidated_laws.pdf (Online) (Accessed 1/5/2015)

TRIPS https://www.wto.org/english/tratop_e/trips_e/t_agm3_e.htm (Online) (Accessed 1/5/2015)

UNDRIP http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf (Online) (Accessed 1/5/2015)

TKDL <http://www.tkdل.res.in/tkdل/langdefault/common/Home.asp?GL=Eng> (Online) (Accessed 10/5/2015)