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#### The continual settler drive to secure its own health has resulted in a system of global biopiracy wherein western transnational corporations have targeted traditional medicine used by tribes in places like Northeast India, establishing patents on biological resources and indigenous medicine for their own profit. Biopiracy renders these indigenous knowledges and communities as only sites for extraction of knowledge, wealth, and resources, which has spread to the global south and is only increasing in speed due to the genomics revolution.

Bhattacharya 14 [Sayan Battacharya, Department of Environmental Studies at Rabindra Bharati University in Kolkata, India], “Bioprospecting, biopiracy and food security in India: The emerging sides of neoliberalism”, International Letters of Social and Humanistic Sciences, SciPress Ltd, pg. 49-54, 2014 //SLC PK

2. BIODIVERSITY, BIOPROSPECTING AND BIOPIRACY

Historically there has been prolific scientific interest in the lifestyles, knowledge, cultures, histories, and worldviews of indigenous peoples. Rural communities depend on traditional knowledge for food, health and agriculture. This traditional knowledge forms the basic cultural identity for them, contributing to social cohesiveness and thereby reducing vulnerability and poverty. 80 % of the world’s populations, mostly the ‘undeveloped’ regions, still rely on the indigenous medicinal knowledge of local plants for their medical needs.3 In India, around 70 % of the population directly depends on land-based occupations, forests, wetlands and marine habitats for ecological livelihoods and cultural sustenance.4

Over 7500 species of plants and several hundred animal species and also metals and minerals are utilized by the folk tradition in India. The custodians and carriers of these traditions are tribal as well as non-tribals, including house wives and welders, thousand of herbal healers, bone setter, vishvaidyas, birth attendants, potters, gold-smiths, black smiths, barbers and even wandering monks.

According to ASI, there are 4635 ethnic communities in India. In principle each of these communities could be having their own oral medical traditions that have been evolving across time and space.3 Traditional knowledge does not only include only the recorded knowledge of plants for medicinal use but also the oral knowledge that has been passed on from generations to generations. In India there have been a lot of cases where the indigenous knowledge has been tried to be taken away. Due to its easy access, it has been prone to piracy. According to UNDP Human Development Report 1999: “The South is the source of 90 per cent of the world’s biological wealth – India, for example, has 81,000 species of fauna and 47,000 of flora, including 15,000 plant varieties unique to the country – and yet industrial countries hold 97 per cent of all patents worldwide and are driving the rush to patent plant genetic resources.” 5

Today, the genomics revolution is fueling a new wave of scientific research in the form of bioprospecting, and it is impacting the lives of indigenous peoples around the world. Bioprospecting involves searching for, collecting, and deriving genetic materials from biodiversity samples that can be used in commercialized pharmaceutical, agricultural, industrial, or chemical processing end products.6

The megadiversity countries with 60-70 % of the world`s known biological diversity have significant stake for harnessing the potential of biotechnology and bioprospecting for achieving sustainable economic development.1 The Convention on Biological Diversity (CBD), the first international treaty provides opportunities to biodiversity rich countries to realize benefits arising out of the utilization of their bioresources. The CBD mentioned that national governments have authority to determine access to their genetic resources, and calls on governments to provide for conservation, sustainable use and equitable sharing of benefits from commercial use of those resources.

Between 4 and 40 million biological species are still unknown in the world. New species are being discovered even today. In the last few decades, biotechnology has developed and played a vital role in the development of the agricultural, pharmaceutical and medical industries. As the importance of the biotechnology industry increases, many useful biotechnological inventions can earn their inventors millions of dollars.

The real pirates are those developed countries, especially the US, who benefited and prospered from the plundering of natural resources from the developing and less developed countries without paying any royalty to the source countries at all. Between 25-50 % of current prescription pharmaceuticals come from plants, either directly or through modifications by biochemical methods, and the value of drugs to the U.S. pharmaceutical industry coming from plant species is estimated at over 30 billion USD per year.2 A multinational company or individual who wishes to develop a new product often makes use of the traditional knowledge of local people in deciding upon a plant, animal or other biological source to study.

After the successful production of commercially useful products from those organisms, the company applies for a patent in its own name on those products. In most cases, the inventor not even acknowledges in his patent application that his product was derived from information provided by a local community. Biopiracy therefore can be described as the unjustified extraction of the environmental heritage and traditional knowledge from various regions of the earth for economic exploitation and industrial monopolization.7

Daniel F. Robinson distinguished between three different categories of biopiracy:

“Patent-based biopiracy: The patenting of (often spurious) inventions based on biological resources and/or traditional knowledge that are extracted without adequate authorization and benefit-sharing from other (usually developing) countries, indigenous or local communities.

Non-patent biopiracy: Other intellectual property control (through plant-variety protection or deceptive trademarks) based on biological resources and/or traditional knowledge that have been extracted without adequate authorization and benefit-sharing from other (usually developing) countries, indigenous or local communities.

Misappropriation: The unauthorized extraction of biological resources and/or traditional knowledge from other (usually developing) countries, indigenous or local communities, without adequate benefit-sharing.” 8

2. 1. Global emergence of Biopiracy

A recent report of United Nations Development Programme (UNDP) mentioned that “if unpaid royalty payments were being made to developing countries and indigenous peoples for the plant varieties and local knowledge used by multinational food and drug companies, those providers would earn approximately 5.4 billion USD per year”.2 Examples of countries not receiving their full share of these royalties include Tibet, India, Sri Lanka, South Africa, Samoa, Madagascar, Ecuador, Mexico and the Philippines. Since the 1980s, individual inventors or corporations in some countries, such as the United States, Japan, and some European countries, successfully lobbied government to permit exclusive rights to certain biological materials they developed through patenting. They were given exclusive rights to plant and/or reproduce and market them and have the right to prohibit others from planting, reproducing and selling the material provided.

2. 2. Biopiracy in India: few examples

In the recent past, there have been several cases of biopiracy of traditional knowledge from India. First it was the patent on wound healing properties of haldi (turmeric).9 Curcuma longa, a type of turmeric, is an Indian herb that has been used as treatment for sprains, inflammatory conditions and wounds. The orange coloured root is native to the subcontinent and South East Asia, and for thousands of years has been a one of the major components of Ayurvedic medicine. In 1995, two US scientists from the University of Mississippi were granted US patent 5,401,504 on the use of turmeric. The scientists claimed that turmeric could heal wounds and claiming this to be novel. They have mentioned in their patent application that turmeric has long been used in India as a traditional medicine for treatment of various sprains and inflammatory conditions. But they claimed that there was no research on the use of turmeric as a healing agent for external wounds. The Indian government vigorously challenged the patent and provided numerous research papers predating the patent, proving that turmeric has long been used in India to heal wounds. As a result, the US Patent and Trademark office rejected all patent claims related to turmeric.10

The Neem tree case is another significant example of biopiracy of Indian medicinal plant. Azadirachtin is one of many active compounds present in bark, leaves, flowers and seeds of the Neem tree or Azadirachta indica. The remarkable properties of this compound have been utilized in India from ancient times in the form of extracts of various kinds produced by Indian farmers and small industrial firms in medicine and agriculture. Use of neem had been described in ancient Indian texts written over 2,000 years ago as an air purifier and effective medicine for almost all types of human and animal diseases because of its insect and pest repellant properties.9,10 A US timber importer studied the curing properties of neem and began importing neem seed to his company headquarter in Wisconsin since 1971. He successfully extracted a pesticidal agent from neem extract called Margosan-O. In 1985, the bio-pesticide derived from neem tree received clearance for the product from the US Environmental Protection Agency (EPA). The patent for the product was sold to the multinational chemical corporation, W.R. Grace after 3 years. Since then, many US and Japanese firms gained patents on formulae for stable neem-based solutions and emulsions and other products. The W.R.Grace approached several Indian manufacturers and industries to purchase their technology. The company ultimately managed to start a joint venture with a firm called P.J. Margo Pvt. Ltd to set up a plant in India. The plant processes up to 20 tonnes of seed a day and also established a network of neem seed suppliers in order to guarantee a constant supply of the seeds at a cheap price. In May 2000, a coalition of groups successfully overturned the patent held by the US company, WR Grace and the US Department of Agriculture over the Indian neem tree.10

Basmati is produced largely in Punjab, Western India and in Pakistan. Basmati rice has been one of the fastest growing export items from India in recent times. It is evident that Basmati has been grown for centuries in the subcontinent. After centuries of observation, experimentation and selection, the Indian farmers have developed numerous varieties of the rice to meet various ecological conditions, cooking needs and taste.9 On 2 September 1997, Texasbased RiceTec Inc. was granted patent number 5663484 for a new plant variety that is a cross between American long-grain rice and Basmati rice. RiceTec claimed that the new varieties have the same or better characteristics as the original Basmati rice and can be successfully grown in specified geographical areas in North America. The patent covers the genetic lines of the basmati and includes genes form the varieties developed by farmers. RiceTec has already been trading rice under brand names such as Kasmati, Texmati and Jasmati. RiceTec’s strain possesses the same qualities and characteristics of the Indian traditional varieties of Basmati. On the question of consumer deception, RiceTec clearly labels its product as ‘American type Basmati rice’.10 No case has been filed in the US so far by any interested party from the Indian subcontinent regarding this serious issue. By mid 2000, however, the Indian government decided to challenge some of the claims of the RiceTec patent. World’s largest importer of Basmati rice, Saudi Arabia and the UK, recognized that Basmati rice is unique to Northern India and Pakistan. Furthermore, the Agricultural and Processed Food Export Development Authority and Trade Mark Watch Agency of India have managed to win the Basmati patent case in at least 15 countries (including UK, Australia, France, Spain, Chile and the UAE). In the Basmati case, RiceTec’s action would really become a threat to the sales of Basmati rice from India, and could affect the economic conditions of the rice farmers in India.

Karela (bitter gourd), Jamun (blackberry), Gumar and Brinjal, for instance, are commonly known in India for their anti diabetic characteristics. Their usees are so common in India that there is no novelty involved while using them for curbing diabetes. A patent was, however, obtained in the U.S. by three NRIs for their utilization as a cure for diabetes.11

North East India is very rich in flora especially in cultivation of medicinal plants by the tribes. Resource-rich Nagaland is plagued by bio-piracy with rare medicinal herbs, orchids and other endangered species being smuggled out of the state. These plants are being borne off by pharmaceutical companies for commercial benefits. Ginseng, taxus baccata and cephallu taxus and paris cordifolia have medicinal properties and are often smuggled to Myanmar.12

Some cases have been highlighted with a success story, but there are also numerous stories of deprivation in the context of biopiracy. Corporate patents usually do not recognize or compensate the indigenous people who are the main conservators of those resources. Indigenous communities, over the centuries, have identified and classified plants native to their lands and found their beneficial characteristics. But, the tribes do not have access to legal information that would protect their plants and cultural knowledge nor do they have the finances to obtain them.9 The profit incentive companies often overexploit the beneficial plant resources for commercial use, which ultimately result in the loss of forests and genetic material, crisis of land, plants and cultural knowledge of the indigenous communities.

2. 3. Biopiracy and food security

The stealing of biological resources and indigenous knowledge would affect food security, livelihood of indigenous people, and consumers’ choice. More than 70 % of our food supply is dependent on a small number of edible plant resources, mainly wheat, maize, rice, and potato, which are fundamental to food security. Patenting of these plants varieties will definitely pose threat to the consumers. The patenting of biological technology will encourage monopoly control of plant material by Western transnational corporations. Farmers will become dependent of on corporations for their input in agriculture, i.e. seeds, fertilizers, pesticides and herbicides. It has particularly troubling implications for the developing world as the farmers cannot afford to buy seed each year and traditionally set aside a portion of their harvest to plant in the next growing season. Moreover, with the introduction of the genetically modified crops and high yielding varieties, the local crop varieties are being lost and outcompeted.13 The farmer’s rights to choose the desired crops have become difficult to implement. The technology can execute a devastating effect on the economy and food security of the farmers in developing world and can eventually destroy the locally adapted, inexpensive traditional crop varieties.14 The entire process will eventually lead to the monopolization of trade, which is ultimately against the principle of free trade fostered by the World Trade Organization (WTO).

India’s agriculture being rich in bio-diversity has been always been an easy prey for big corporations engaging in agribusiness for the purpose of bio-piracy.15 Monsanto, for instance, tried to spread genetically modified brinjals in India in the form of Bt Brinjals in spite of the fact that India itself is a source of over 2500 different unique varieties of brinjals.16 Monsanto’s attempt of taking over the market was opposed by the public forcing the government to ban it for an indefinite period of time.16 But Monsanto is still stealing native crops, including brinjals, and quietly working on GM varieties of them in test fields, which is a clear violation of India's Biological Diversity Act 2002 (BDA). The farmer variety has been used by Monsanto in its breeding programs without taking prior permission from Indian farmers and without entering into any kind of benefit sharing agreement with them. This is not just grossly unethical; it is in violation of international agreements like the Convention on Biological Diversity (CBD) and the International Treaty on Plant Genetic Resources (ITPGR) which recognize the rights of the farming community over the genetic wealth used in agriculture.17

#### Western intellectual property rights protections are structurally opposed to traditional indigenous medicines, causing continual cooption for modern pharmaceuticals while leaving the communities from which they’re derived in the dust.

Eiland 08 [Dr. Eiland received a doctorate in Oriental Archaeology from Oxford University and an LLM from the Munich Intellectual Property Law Center], “Patenting Traditional Medicine”, Nomos Verlagsgesellschaft mbH & Co. KG, pg. 7-10, 2008 //SLC PK

Traditional medicines (TM)1 can form the basis of modern pharmaceuticals. Depend- ing upon national laws, it is possible to protect TM with patents. For instance, a US patent can be issued that derived information or even genetic resources from the TM of another country. This has raised criticism from a number of different perspectives. Most notably there is a perceived conflict between traditional knowledge (TK) struc- tures and patent law. Some question if TM is even an intellectual property (IP) right. There are a number of proposals to protect TM using other forms of IP rights, such as geographical indications and trade secret law. These issues are far from settled, and can have strong political overtones. Before going further, however, TM will be con- sidered in the light of other IP rights.

TM has been a source for pharmaceuticals for a long time. Aspirin is a good example. The ancient Egyptians used willow leaves as an analgesic and anti-inflammatory drug. The Classical world was also familiar with the healing properties of this plant. Hippocrates (460 – 370 BC) recommended the use of extracted juice from the bark of the white willow to suppress pain and fever. It was only in 1828 that the extract of wil- low bark was purified. In 1859 the chemical structure was identified. The drug was mass produced shortly thereafter. Bayer registered the compound on 1 February 1899 under the name of Aspirin. The ‘a’ stood for acetyl, and the ‘spir’ for Spiraea ulmaria, the plant from which the drug had first been isolated. Today it is the most popular analgesic in the world, and new discoveries are ongoing.2 In the case of aspirin, the TK that helped researchers to find the active ingredient was thought at the time to be in the public domain. If aspirin were patented in recent decades, there would no doubt be litigation over who supplied the TK. Other examples of drugs derived from natural substances and that have been incorporated into mainstream medicine are morphine (1806), quinine (1823), atropine (1833) and digitalis.3 In 1982, it was estimated that about 50 % of all filled prescriptions in the US originated from drugs that were derived – one way or another – from natural substances. This generated US sales of about 20 billion.4 Another estimate found that 3/4 of the plants used in prescription drugs originally came to the attention of drug companies because of their use in TM.5 In 1995, the worldwide market value of TM derived pharmaceuticals was estimated to be $43 billon.6 While one could argue about the precise values, TM has significant pharmaceutical applications. Drug companies are interested in acquiring TM, both natural substances, as well as the knowledge about how to use them. In the past, such knowledge was regarded as free information. The assumption was that no one had a right to this information, especially because there usually needed to be a long process of development to make TM into a patentable drug. Modern conceptions of the issue leave little doubt that TM can be an IP right. Considering the large profits generated by modern drugs, there has been increasing pressure to pro- tect TM with patents. Several well-known cases of western companies patenting drugs based on TM has also raised concerns. Some advocates who don’t support the patent system but who do wish income to ‘trickle down’ to the communities who developed the TM suggest that an entirely new legal framework be established. Patents are appreciated by this group as unsuitable:

First, the invention is not dated, so that it is not possible to determine the critical date. As it would have been used for a long period of time, it would lack novelty. Also, the inventor is not determined, since it is knowledge that belongs to the who community. Patents are granted to individuals, or a small group of them, not to an undetermined group of people.7

The main question that emerges is feasibility. Are patents suitable for protecting TM and, if not, what are the alternatives?

The Controversy Bio-piracy is a term minted in the last decades to describe taking biological materials – including TM – and patenting them in the west.8 When this happens TK right holders allege a property right has been violated. The source of the information, as well as the material itself, is not acknowledged. No compensation is paid. When a patent is issued, it is not held by the inventor. The patent will prevent the holder of the TK from taking out a patent themselves. Despite the accusations, however, a patent is granted for an invention that may have little in common with TM as practiced by an indigenous community. Bio-piracy is a very political issue.

This highlights the so called north-south divide.9 The accusation is that wealthy nations in the north rely upon colonial era conceptions of property in order to gain access to TK, including TM, for free. TK is not usually protected using a system of written laws in southern countries. It may be controlled as collective property by trained practitioners (such as a Shaman).10 The fact that the legal systems may be different – they may be termed traditional legal systems – does not make them less valid. It does, however, make compliance difficult. This quickly leads into the issue of disclosing the origin of biological materials as a pre-requisite for patent protection. Indeed, without knowing the origin there can be no thought of benefit sharing.11 Yet from a ‘northern perspective’ these proposals could hamper research and lead to higher drug costs. On the other side, some have suggested that protection of medical knowledge, including drugs, with patents is fundamentally incorrect.12 While this subject captures media and public attention, the patent system is unlikely to be replaced any time soon.13 The real questions are how patents can be used to protect TM, and how patents based on the misappropriation of TM can be stopped. Some consideration will also be paid to other legal methods of protecting TM that have been proposed as alternatives to patents.

TM involves both the substance itself (assumed here to be botanical) as well as the practices used to prepare it for use. Both India and China14 have ancient medical traditions, but they use very different methods of protecting it. The TM of these two countries will be used as a lens to explore some of the issues involved in patenting. There are then two important divisions in the analysis. The first is the kind of protection provided in national legislation. The second issue is the kind of protection offered to TM of other countries in the west as well as in international agreements. America will receive special attention. Prior use or (unpublished) knowledge of an invention in a foreign country is no bar to obtaining a patent in America.15 This is clearly in order to encourage US business and industry, but according to critics, it has devastating effects on the TK of other nations.1

#### The move to biopiracy adds new energy and technology to the settler project of terra nullius, putting every part of the world into the project of dispossession.

Sharma & Campbell 99 [Sharma is a Ph.D. in Sociology from the University of Toronto and an Associate Professor of the Sociology Department at the University of Hawai’I at Manoa. Allison Campbell is an American Chemist known for work on biomineralization, biomimetics, biomaterials, and bioactive coatings for medical implants.] “Vandana Shiva on Sexual Economics, Biopiracy and Women's Ongoing Resistance to Colonialism”, Atlantis, Volume 23.2, Spring/Summer 1999 // SLC PK

Q. 1 Some feminists talk about globalization as a new phenomenon. You talk about it as a five hundred-year-old project of colonialism. You also recognize that this process has not been a static one and that major changes have taken place throughout the 1990s. In your view, what are some of the changes that signify to you that this decade represents a third wave of colonialism and how do you see it as part of, rather than distinct from, the larger colonial project?

The connection between the present globalization and the first wave of globalization which, in the Third World, was just called, "colonialism," are the ideas that Other people aren't people, their resources are up for grabs, it's an empty earth, it's terra nullius and that colonization is actually a liberation, because the colonizer, somehow, by bringing the colonized into the colonial relationship lifts them out of their "non-humanness." The whole notion of the "white man's burden" fits into colonization by first and necessarily defining people out of humanity and then defining them up into a humanity as defined by the colonizer.

Something very, very similar is going on now, which is why in the Third World when this period of globalization started, we didn't just talk of it as globalization. We talked of it as recolonization. It was experienced as that. It was identifiable as that - with a few breaks, with a few changes. The commonness is, of course, the fact that all the systems and structures that societies put together in the post-colonial phase, in all its imperfections, are being systematically disbanded. You suddenly see countries starting to look the way they did before independence. The same oil companies which were thrown out are back. The same domination is there. You can literally, physically, see it. You know Gandhi's entire mobilization was started by his being thrown out of a first class train compartment in South Africa. Suddenly in India, I experience the fact that there is a business class where white men travel and there is an economy class where the rest of us are. It wasn't that way a while ago. So you can see this recolonization physically also.

The novelty of this colonialism, the break with the old project of globalization, is that it is creating new colonies. It is still creating colonies, but it is creating new colonies. I often call these new colonies the life within living systems: the interior spaces of women, animals and plants. It is presented as a "brave new breakthrough" into a genetic world. For instance, in a circular announcing a meeting organized by the department of Industry Canada with Monsanto (one of the world's largest bio-technology corporations) this last June, they used the word "genetic commerce." Now, it is not the case that they haven't traded in biological products before. The entire coffee trade, tea trade and sugar industry was a trade in these products.

I remember reading somewhere that by the end of the violence of the creation of the sugar industry, which had become an addiction in Europe, there were some "fair traders" saying "don't eat West Indian beet sugar, because this many kilograms of sugar is equal to so many lives, because that's how many slaves had to be killed." And they'd eat East Indian sugar because it comes from farms run by people themselves. There's a wonderful historian who has called this the "big Colombian Exchange." The Colombian Exchange, according to him, was the process where valuable, biological wealth was being taken from the colonies, particularly the Americas and from the Native Americans. Corn is a primary example. I mean look at anything that is today, not just the staple in consumption, but is the basis of Empires: Levers, Lipton, look at any of them. These empires are related to a genetic commerce of another era. So there's nothing very new about it.

But now, new tools are being used to go into the spaces within. These inner spaces are then declared as private property. By having the ability to move parts of organisms around, they, the creators and owners of these new tools, are then claiming that they have created whole systems of life. They are, then, claiming new property. Like they claimed property in land and in so doing dispossessed the original inhabitants, they are now creating property in life. And this is the real breakthrough. There are new technological tools for colonization. There are new notions of property in areas that the last colonialism couldn't reach. Combined with all this, of course, is the even further construction of fictions that white men have created to get power away from people's understanding of their world. These fictions are used to detach themselves, to de-personify their agenda by making it more abstract.

Q.2. Over the last five hundred years, there has been a profound ontological shift in notions of values, wealth and power that has deeply affected women, nature and the "Third World." In each case, white males of the ruling class have defined themselves as creator, knower and benefactor. In your work, you have talked about how their role as exploiters has been naturalized by conceptually emptying women of their creative capacities, emptying nature of its regenerative capacities and emptying the people of the "Third World" of their capacity to self-organize and denying their prior ties to their land. You talk about this latest wave of globalization as representing a further, equally profound, cosmological shift. What is this shift and how is it affecting the daily lived experiences of women?

The present shift is redefining living systems, particularly women, plants, animals, microbes and their regenerative capacities, as empty of any regeneration. That capacity to regenerate is then relocated in the engineering mind, in the engineering man where it is treated as a product of that mind, which is outside of the actual regeneration process. As a result of that emptying out of the regenerative and creative capacity of plants, animals and women, you get this notion of creation as something you do to systems from the outside. This is a repeat of the way it was first constructed within Christianity where a male God created creation from the outside. This was/is very different from most other cosmologies where creation creates herse\f - and it is always as a "herself." Yet, now they don't even need a God in male image. Now, it is the males of this planet who are basically saying they are the creators. For instance, they "created" Dolly.

You can see this in their representation of what they are doing. You can see how they are trying to shift people's minds by saying the Creator is the scientist and owner (in this case Ian Wilburt), and Dolly is what he created. Yet, all Wilburt did was take two cells and put an electric shock through them. That is all he did. Dolly did the rest herself. But, of course, in the way it is commonly represented, Dolly is not her own creation. However, she is a tremendous miracle of self-organization. That fact that Dolly took an alien cell and organized herself into a wool sheep is a miracle, a miracle which the 276 "sisters of Dolly," as I call them, who were mutants, could not do because there was a rejection. But they too were still self-organizing. Even if it wasn't a self-organizing that matched the agenda of pharmaceutical companies. Now, this notion of creation is literally redefining what we are. It is a very profound ontological shift, because it is making us bundles of genes, rather than complex systems in highly intensive interaction with ourselves and with the rest of the world.

#### Thus, we affirm – the member nations of the World Trade Organization ought to end the use of intellectual property protections by non-Indigenous groups for medicines derived from indigenous knowledge.

#### Indigenous peoples have made it clear—IPR is an active threat to traditional medicine which treats natives as an expense rather than a priority. Prefer indigenous scholarship—conversations over IPR on traditional knowledge have actively and historically excluded native voices which ignores the material implications they have on the lives and livelihoods of natives.

IPCB et al. 06 [The IPCB is organized to assist indigenous peoples in the protection of their genetic resources, indigenous knowledge, cultural and human rights from the negative effects of biotechnology. Llamado de la Tierra is comprised of indigenous peoples throughout the world who are experienced in cultural and intellectual property policies and laws in the context of the indigenous struggle for de-colonisation and self-determination. The International Indian Treaty Council serves as an advocate for the human rights of Indigenous Peoples locally, nationally, and internationally.] “Joint Statement of the Indigenous Peoples Council on Biocolonialism (IPCB), Call of the Earth/Llamado de la Tierra (COE), & International Indian Treaty Council (IITC)”, International IP Policy News, 6-12-06, <https://www.ip-watch.org/2006/12/06/inside-views-indigenous-groups-tell-wipo-dont-patent-our-traditional-knowledge/> //SLC PK

Mr. Chairman, we have some general comments regarding document 10/5 on traditional knowledge. As we noted yesterday, TCEs cannot exist without TK, therefore, the comments we gave yesterday regarding TCE’s also apply to this agenda item. And in particular, we would like to reiterate that we qualify our comments on this document by the following understanding: our provision of comments on the Draft Objectives and Principles does not imply any ascension to the process or document as a whole. To be clear, it is entirely premature for our organizations to indicate a preference for a legally binding instrument based on this draft document.

Until the substantive provisions are entirely illuminated, it would be irresponsible of us to make such a commitment. Unfortunately, the Committee’s work to-date has been developed without the broad-based participation of Indigenous peoples. Until this process has much broader participation by Indigenous peoples, it would be inappropriate to endorse any standard-setting or legally binding instrument that would impact on all Indigenous peoples all around the world.

TK is a topic of utmost concern to Indigenous peoples because traditional knowledge, and more specifically, Indigenous knowledge, is all encompassing in that it represents the collective cultural heritage of our Peoples. IK is the foundation of Indigenous cultures, and therefore, any policy-related or standard-setting discussion about the protection of our knowledge poses significant implications to the lives and livelihoods of Indigenous peoples and are of critical concern.

Before discussing how the Committee can propose to protect TK, it is necessary to understand the different meanings of protection. Protection, from an intellectual property law perspective, means that the owner of a patent, a copyright, a trademark or some other IP has a legal right to exclude others from using or reproducing it. The IP forms of protection for intellectual creations and innovations are time limited, individualistic, monopolistic and exist for economic benefit.

By contrast, when most Indigenous peoples speak of protecting Indigenous knowledge, we mean it in a much broader sense that includes safeguarding its continued existence and development and protecting the whole social, economic, cultural and spiritual context of that knowledge. Indigenous peoples are seeking mechanisms that protect the holistic, inalienable, collective, and perpetual nature of Indigenous knowledge systems for purposes far more expansive than profit motives.

Any attempt to develop IPR-based mechanisms to “protect” IK actually poses much more threat to our knowledge, as a whole, than it can ever claim to prevent. Rather than protect, the imposition of IPRs over IK actually would serve to facilitate the alienation, misappropriation, and commercialization of IK.

Furthermore, dividing IK into artificial categories, rather than safeguarding its holistic and dynamic nature, poses a serious threat to its continued existence and development. It must be clear that any attempt to recast IK in IP terms fundamentally changes the nature of the IK from that of belonging to the cultural heritage of Indigenous peoples, to being private property in western law. Policy Objectives

With regard to the Policy Objectives, we have some general comments.

Regarding section (iii), in order to “meet the actual needs of holders of TK,” our rights must not only be respected, but more importantly these rights must be recognized.

Regarding section (vii), when referring to the specific intellectual traditions of Indigenous peoples, the term Indigenous knowledge (IK) should be utilized. IK is holistic in nature, and cannot be separated into distinct categories. IK is intrinsic to specific Indigenous peoples, and is fundamental to sustaining this distinct knowledge for future generations. As such, IK does not exist for the benefit of others but rather the Peoples to whom the knowledge belongs. Protection of Indigenous peoples’ rights over their knowledge should be a priority, rather than trying to balance the interests of users of IK at the expense of compromising the rights of IK holders.

Regarding section (xi), free prior informed consent of the affected Indigenous peoples must be ensured. Existing and developing national and international regimes governing access to genetic resources have not consistently recognized our right to FPIC, therefore, we expect the Committee not just be consistent with the other regimes, but to uphold the highest degree of recognition of our right to FPIC.

Regarding section (xiv), the list of means to preclude the grant of improper IP rights does not meet the needs and aspirations of Indigenous peoples. Disclosure of source and origin in a patent application and providing evidence of PIC and benefit sharing for the country of origin is insufficient. In fact, we believe patent applications that include or are based on IK should be specifically excluded from patentability. In IP terms, we’re sure you understand that these patent claims would fail to meet the test of innovation, novelty or inventiveness. But more importantly for Indigenous peoples, such patent claims should be denied because IK is in the Indigenous domain; that is, it is already under the jurisdiction of Indigenous legal systems, which protect the IK in perpetuity as the inherent and inalienable cultural property of Indigenous peoples. General Guiding Principles

IK belongs to the originators of such knowledge, as do the genetic resources originating from their territories. IK systems can best be protected by ensuring the right of self-determination of Indigenous peoples, including the right to territory and permanent sovereignty over natural resources. We are concerned about comments by some States that wish to strike any reference to the rights of Indigenous peoples in the Committee documents. We note with particular concern Canada’s intervention today that the language of the document should be changed to reflect only “IP rights.” The rights we are seeking here are far beyond IP rights; We seek recognition of our human rights to our self-determination, cultural heritage, and right of free, prior informed consent. Indeed, it is precisely these rights that provide the legal framework for the protection of Indigenous peoples’ TK, TCEs and genetic resources. Substantive Provisions

Some topics clearly fall within the purview of intellectual property, namely copyrights, patents and trademarks among others. IK is not one of them. Therefore, any comments on the substantive provisions would be premature. Conclusion

True protection of IK, responsive to the needs and aspirations of Indigenous peoples, is fundamentally based upon the recognition of the rights of Indigenous peoples, as established in international human rights laws. Given the mandate of WIPO to promote IPRs, and the fact that IPRs cannot adequately protect IK, perhaps this discussion should best be carried out in the human rights arena.

Thank you for your indulgence.

#### When biopiracy tries to patent indigenous medicine, it also demonstrates a renewed interest in nature and a certain type of knowledge. This interest destabilizes the nature/culture binary as fixed by the enlightenment, showing that nature is of value. This becomes a locus to debunk settler myths and disrupt the equation of modernity. Legal and political moves against biopiracy such as the plan are key to solvency—anything else fails to rupture the western representation of the helpless native which is necessary for real justice.

Curbishley 15 [Liddy Scarlet Curbishley in a Thesis submitted for the Masters of Humanities in Gender Studies at Utrecht University], “Destabilizing the Colonization of Indigenous Knowledge In the Case of Biopiracy”, August 2015 //SLC PK

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 lead 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.

#### Every facet of foreign policy is indebted to settler colonialism—IR’s erasure of indigenous peoples through casting them as domestic, primitive, and landless creates complicity in the destruction of indigenous life and governance.

King 17 (Hayden King, Gchi'mnissing Anishinaabe writer and educator based in the Faculty of Arts at Ryerson University in Toronto., 7-31-17, The erasure of Indigenous thought in foreign policy, <https://www.opencanada.org/features/erasure-indigenous-thought-foreign-policy/>, JKS)

This type of arrangement between Indigenous and non-Indigenous Canadians might be conceptualized as politics, indeed effective diplomatic practice in an imperfect world. But for the scholars and practitioners in the field of foreign policy it is invisible. Likewise with the more provocative type of Indigenous diplomacy: the countless blockades to protect the land and water, land and treaty claims, the Idle No More movement, and so on. In the discipline of International Relations (IR), too, Indigenous philosophy and politics has been excused, marginalized and categorized as domestic, at best. Indeed, the centuries of colonization that have subjugated Indigenous political communities are the foundation on which contemporary thinking about ‘the global’ has revolved. In this sense, foreign policy and IR are implicated in both spawning and sustaining settler colonialism in Canada. As a result, there is a need to chart the links between these processes and consider the shape and content of long-neglected Indigenous philosophies of the international. For as long as settler colonialism defines the limits of what is possible for foreign policy, the relationship (or, the politics) between Indigenous peoples and non-Indigenous will continue to be characterized by conflict. Foreign policy, but in whose national interest? For those studying and working in foreign policy, there are certainly debates over what constitutes the definition of the field. In Canada, there are debates about what counts as foreign policy (defence, security, trade, peacekeeping) and also how to approach those subjects (from liberal frameworks, realist, even some critical lenses). In his textbook on foreign policy Kim Nossal notes that the field is inherently divisive, emerging from “the interplay of conflicting interests, divergent objectives, contending perceptions, and different prescriptions about the most appropriate course of action.” Yet despite these divisive debates, there is near universal acceptance of two core assumptions: the legitimacy of the Canadian state itself as the primary actor in foreign policy and the concept of the national interest, which the field of foreign policy strives to serve. This is no surprise, really, considering these assumptions are underwritten and supported by every domestic institution — from Canada’s constitutional sources, to the cultural organizations that currently promulgate the fantasy of Canada as 150 years of glowing hearts, or decisions of the Supreme Court that reflect on the “assertion of Crown sovereignty” without ever explaining how that sovereignty was obtained. But for critical Indigenous scholars, these assumptions are myths that form not a legitimate state in the community of nations, but rather a violent settler colony. Flower break Indigenous Between 1921 and 1923, after many years of resistance to the young countries, Canada and the United States were steadily encroaching into Haudenosaunee territory and governance. Cayuga Chief Deskaheh, also known as Levi General, travelled to London, England, to appeal to King George on the matter. (He wasn’t the first or last to appeal to a King or Queen; Anishinaabe leader Shingwaukonse actively attempted to, post-War of 1812, and Chief Theresa Spence did so in 2013, among many others). But when King George refused him, Deskaheh turned to the Geneva-based League of Nations, seeking a seat for the Haudenosaunee. With his efforts undermined by English officials there too, he returned home but was stopped at the U.S.-Canada border and turned away by Canadian border guards. He spent his final days in Rochester, New York. Before his death he made one last plea to ordinary Canadians and Americans for justice: “Do you believe — really believe — that all peoples are entitled to equal protection of international law now that you are so strong? Do you believe — really believe — that treaty pledges should be kept? Think these questions over and answer them to yourselves…We have little territory left — just enough to live and die on [because] the governments of Washington and Ottawa have a silent partnership of policy. It is aimed to break up every tribe of red men so as to dominate every acre of their territory.” (His plea is documented in Rick Monture’s We Share Our Matters.) The last two sentences of this quote are an apt description of modern settler colonialism, nearly 100 years before scholars identified the process. For anthropologist Patrick Wolfe, there is a distinction between colonialism, which eventually ends when the invaders leave, and settler colonialism, where they don’t. While in the former formulation the Indigenous population is often transformed to labour for colonial extraction, in the latter, the settler colony attempts to liquidate all remnants of the previous (Indigenous) societies to legitimize its permanent presence. Deskaheh was speaking in the North American context, Wolfe in the Australian, but the phenomenon can be seen elsewhere, from Aotearoa/New Zealand to Palestine/Israel. Common strategies in this liquidation are as follows: physical extermination; oppressive Indian legislation designed to contain; the creation of reserves/reservations/settlements, residential or boarding schools; discrimination aimed specifically at women; and eventually legal absorption into state apparatuses and assimilation. While the genocidal nature of settler colonialism may not appear as physical violence today (though we do still have plenty of that), the underlying motivation to expunge threats to settler sovereignty endures. But where the specific harms of the field of foreign policy come into greater focus are in crafting a common sense around what counts as a legitimate politics of the international. Consider the core concepts of the field, or at least the discipline of IR that foregrounds foreign policy. I think its fair to say most traditional perspectives view the international system as an anarchic environment where self-interested and (mostly) rational states compete against each other for power. Or, in contrast, they may cooperate. For foundational IR scholar Hedley Bull, this simple formulation is “the supreme normative principal of the political organization of mankind.” I don’t need to elaborate on these concepts for this audience. But, what about political communities that do not resemble a state, that eschew coercive notions of exclusive sovereignty, that are bound by obligations and responsibilities to the land and thus do not recognize an anarchic world, political communities that do not start and end with men? The discipline of IR, as well as practice of foreign policy, effectively casts Indigenous peoples as primitive (or at least inferior), sanctions the theft of their lands, and then forecloses the possibility of resurgent political communities. At a fundamental level the perpetuation of this conceptual galaxy denies opportunities for Indigenous expressions of liberation — whether the case is the Six Nations of the Grand River, whose demands for a seat at the League of Nations in 1922 were rejected, or the current Canadian government demands that the articulation of international Indigenous rights not challenge territorial integrity or state sovereignty (this is true generally but seen clearly with the United Nation’s Declaration on the Rights of Indigenous Peoples). Such a denial is also expressed in the the unequivocal support of the state of Israel at the expense of Palestinian existence, or the collaboration with a Honduran government that suppresses Indigenous communities and murders activists like Berta Cáceres. I am talking about more than denying liberation. By continuing to enforce the view of humanity as a set of political states, with Europe at the centre of the planet – as Chickasaw lawyer James Youngblood Henderson once pointed out in his deconstruction of the familiar Mercator world map – foreign policy actively contributes to the erasure of Indigenous political difference conceptually as well as Indigenous bodies physically. (Not to mention non-Indigenous but racialized political communities and bodies, too.) Thus, Canadian foreign policy is a foreign policy that normalizes and affirms settler colonialism. This is the primary national interest. And so, foreign policy is itself a manifestation of settler colonialism.

#### Debate’s fixation on extinction narratives centers a notion of universal humanity that allows for dehumanization and erasure of native relationality to nature. Settlers attach themselves to the thrill of abjection in order to distance themselves from the violence of settler colonialism and the ethical imperative to work against it.

Mitchell 17 ““Decolonizing against extinction part II: Extinction is not a metaphor – it is literally genocide” Audra Mitchell [settler currently living and working on the Ancestral and Treaty lands of the Attawandaron (Neutral), Haudenosaunee (Six Nations of the Grand River) and Anishinaabe (Mississaugas of the New Credit) peoples. Prof. Mitchell holds the Canada Research Chair in Global Political Ecology at the Balsillie School of International Affairs], September 27, 2017, https://worldlyir.wordpress.com/2017/09/27/decolonizing-against-extinction-part-ii-extinction-is-not-a-metaphor-it-is-literally-genocide/ SM

Extinction is not a metaphor…

Extinction has become an emblem of Western, and white-dominated, fears about ‘the end of the(ir) world’. This scientific term is saturated with emotional potency, stretched and contorted to embody almost any nightmare, from climate change to asteroid strikes. In academic and public contexts alike, it is regularly interchanged with other terms and concepts – for instance, ‘species death’, global warming or ecological collapse. Diffused into sublime scales – mass extinctions measured in millions of (Gregorian calendar) years, a planet totalized by the threat of nuclear destruction – ‘extinction’ has become an empty superlative, one that that gestures to an abstract form of unthinkability. It teases Western subjects with images of generalized demise that might, if it gets bad enough, even threaten us, or the figure of ‘humanity’ that we enshrine as a universal. This figure of ‘humanity’, derived from Western European enlightenment ideals, emphasizes individual, autonomous actors who are fully integrated into the global market system; who are responsible citizens of nation-states; who conform to Western ideas of health and well-being; who partake of ‘culture’; who participate in democratic state-based politics; who refrain from physical violence; and who manage their ‘resources’ responsibly (Mitchell 2014).

Oddly, exposure to the fear of extinction contributes to the formation and bolstering of contemporary Western subjects. Contemplating the sublime destruction of ‘humanity’ offers the thrill of abjection: the perverse pleasure derived from exposure to something by which one is revolted. Claire Colebrook detects this thrill-seeking impulse in the profusion of Western blockbuster films and TV shows that imagine and envision the destruction of earth, or at least of ‘humanity’. It also throbs through a flurry of recent best-selling books – both fiction and speculative non-fiction (see Oreskes and Conway 2014; Newitz 2013; Weisman 2008). In a forthcoming intervention, Noah Theriault and I (2018) argue that these imaginaries are a form of porn that normalizes the profound violences driving extinction, while cocooning its viewers in the secure space of the voyeur. Certainly, there are many Western scientists, conservationists and policy-makers who are genuinely committed to stopping the extinction of others, perhaps out of fear for their own futures. Yet extinction is not quite real for Western, and especially white, subjects; it is a fantasy of negation that evokes thrill, melancholy, anger and existential purpose. It is a metaphor that expresses the destructive desires of these beings, and the negativity against which we define our subjectivity.

But extinction is not a metaphor: it is a very real expression of violence that systematically destroys particular beings, worlds, life forms and the relations that enable them to flourish. These are real, unique beings, worlds and relations – as well as somebody’s family, Ancestors, siblings, future generations – who are violently destroyed. Extinction can only be used unironically as a metaphor by people who have never been threatened with it, told it is their inevitable fate, or lost their relatives and Ancestors to it – and who assume that they probably never will.

This argument is directly inspired by the call to arms issued in 2012 by Eve Tuck and Wayne K. Yang and more recently by Cutcha Risling-Baldy. The first, seminal piece demonstrates how settler cultures use the violence of metaphorical abstraction to excuse themselves from the real work of decolonization: ensuring that land and power is in Indigenous hands. Risling-Baldy’s brilliant follow-up extends this logic to explain how First People like Coyote have been reduced to metaphors through settler appropriation. In both cases, engagement with Indigenous peoples and their relations masks moves to innocence: acts that make it appear as if settlers are engaging in decolonization, while in fact we are consolidating the power structures that privilege us.

In this series, want to show how Western, and white-dominated, discourses on ‘extinction’ appear to address the systematic destruction of peoples and other beings while enacting moves to innocence that mask their culpability and perpetuate structures of violence. As I argued in Part I of this series, extinction is an expression of colonial violence. As such, it needs to be addressed through direct decolonization, including the dismantling of settler colonial structures of violence, and the resurgence of Indigenous worlds. Following Tuck, Yang and Risling-Baldy’s lead, I want to show how and why the violences that drive extinction have come to be invisible within mainstream discourses. Salient amongst these is the practice of genocide against Indigenous peoples other than humans.

…it is literally genocide.

What Western science calls ‘extinction’ is not an unfortunate, unintended consequence of desirable ‘human’ activities. It is an embodiment of particular patterns of structural violence that disproportionately affect specific racialized groups. In some cases, ‘extinction’ is directly, deliberately and systematically inflicted in order to create space for aggressors, including settler states. For this reason, it has rightly been framed as an aspect or tool of colonial genocides against Indigenous human peoples. Indeed, many theorists have shown that the ‘extirpation’ of life forms (their total removal from a particular place) is an instrument for enacting genocide upon Indigenous humans (see Mazis 2008; Laduke 1999; Stannard 1994). Specifically, the removal of key sources of food, clothing and other basic materials makes survival on the land impossible for the people targeted.

Nehiyaw thinker Tasha Hubbard (2014) makes a qualitatively distinct argument. She points out that the Buffalo are First People, the elder brothers of the Nehiyaw people (and other Indigenous nations – see Benton-Banai 2010). Starting in the mid-1800s, the tens of millions of buffalo that ranged across Turtle Island were nearly eliminated through strategic patterns of killing carried out by settler-state-sponsored military and commercial forces. Their killing was linked to governmental imperatives to clear and territorially annex the Great Plains by removing its Indigenous peoples. As Hubbard points out, methods of destroying buffalo herds included large-scale killing, but also the disruption of their social structures, the destruction of the ecosystems on which they rely, and the removal of calves. These acts involve each of the components of the definition of genocide enshrined in the UN Genocide Convention:

(a) Killing members of the group;

(b) Causing serious bodily or mental harm to members of the group;

(c) Deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part;

(d) Imposing measures intended to prevent births within the group;

(e) Forcibly transferring children of the group to another group.

From Hubbard’s viewpoint, rooted in Nehiyaw philosophy and ethical-legal principles, the systematic destruction of the buffalo is not like genocide, nor is it exclusively a tool for carrying out genocide against human peoples. It is genocide in its own right: an attempt to destroy a particular First People and the possibilities of its continuity. In other words, the deliberate and systematic attempt to eliminate the buffalo, enacted by settler states, simultaneously enacted genocide against Indigenous peoples and their nonhuman relatives.

Genocides of Indigenous peoples (human and otherwise) continue apace in contemporary settler states, transformed into multiple manifestations. For instance, they are integral to ‘biosecurity’ strategies designed to police the biological boundaries of these states and their citizens. Laced with racializing and xenophobic rhetoric (Subramaniam 2001), strategies such as culling or planned eradications are intended to remove ‘invasive’ or ‘foreign’ life forms in order to protect ‘Native’ ones. Many of the ‘invasive’ life forms targeted for destruction were transported to unfamiliar lands through colonial patterns of settlement and global trade flows.

However, this logic of elimination (Wolfe 2006) is often perverted, turned against Indigenous\* beings whose flourishing impedes the expansion or consolidation of the colonial state. For instance, Deborah Bird Rose (2011 a, 2011 b) shows how this form of violence is continually waged against flying foxes, who are framed by the settler state as “pest[s] whose extinction is [deliberately] sought”. This act of elimination involves explicit genocidal ideation, or the imagination of the destruction of a people. Rose characterizes it as a “matter of imagining a world without [dingoes or flying foxes], then setting out to create it” (Rose 2011a). The Australian settler state has used multiple tactics to induce terror and preclude flourishing amongst flying foxes, from the emission of high-pitched electronic signals to smearing trees with python excrement (Rose 2011b). Indeed, in 2014, I lived near to the roosting site of a group of flying foxes in Turrbal and Jagera Country (suburban Brisbane to settlers). Such nesting places are called ‘colonies’ , reflecting a Western scientific rhetoric that frames Indigenous peoples as ‘invaders’ of the settler state. The trees that housed the nesting site backed onto a municipal facility, whose fence had been covered with barbed wire, in which many of the bats snared their wings and starved to death. This ‘security’ measure – designed to protect the facilities relied upon by urban settlers from the intrusion of flying foxes – is a powerful weapon for precluding ongoing flourishing of Indigenous other-than-human peoples. I learned from neighbours that this ‘colony’ had previously been ‘moved’ from several other sites around the city, suffering significant declines in population each time. Indeed, despite reported declines of 95% in flying fox communities in Queensland and neighbouring New South Wales, the Queensland settler state legalized the shooting of the bats in 2012 by fruitgrowers.

Of course, in some cases, the elimination of life forms is not as targeted or intentional – it may take the form of land-based extractive violence, the creep of ocean acidification, the decimation of rainforests by climate change. Proponents of a Eurocentric definition of genocide could argue that these events lack intention. Indeed, within international law, intention to commit genocide is a necessary criteria for conviction. However, theorists of critical genocide studies have long argued that this definition is inadequate: it brackets out a great many of the acts, logics and structures that produce the destruction of unique peoples. According to Tony Barta, definitions of genocide that focus on ‘purposeful annihilation’, and in particular on physical killing, have “devalu[ed] all other concepts of less planned destruction, even if the effects are the same” (Barta 2000, 238). For this reason, he shifts the focus from ‘genocidal intention’ to ‘genocidal outcome’ – that is, from the abstract assignation of genocidal agency to the felt and embodied effects of eliminative violence. It is the focus on intent, he contends, that allows white Australians to imagine that their relationship with Aboriginal people is non-genocidal despite overwhelming evidence of systematic and deliberate racialized destruction over several centuries. In contrast, an approach based on ‘genocidal outcomes’ makes it possible to account for complex causality and weak intentionality – that is, for myriad acts mediated by subtle, normalized structures that, together, work to eliminate a people. I want to argue that the same logic applies to nonhuman peoples: the destruction of a life form, its relations with other beings and its possible futures is a genocidal outcome, whether or not intention can be identified.

Similarly, Christopher Powell (2007) argues that, since a ‘genos’ is a

“network of practical social relations, destruction of a genos means the forcible breaking down of those relationships…these effects could be produced without a coherent intent to destroy. They could result from sporadic and uncoordinated actions whose underlying connection is the production of a new society in which there is simply no room for the genos in question to exist. They might even result from well-meaning attempts to do good” (Powell 2007, 538)

As I have argued elsewhere, extinction is defined by the breaking of relations and the systematic destruction of the conditions of plurality that nurture co-flourishing worlds. Whether inflicted out as a deliberate act of extirpation, or as the convergent effect of eliminative logics expressed over centuries and enormous spatial scales, extinction is the destruction of relations and the heterogenous societies they nurture.

Understood in this way, ‘extinction’ is not a metaphor for genocide or other forms of large-scale violence: it is a distinct manifestation of genocide. Masking the genocidal logics that drive extinction involves several moves to innocence (Tuck and Yang 2012). Treating extinction as something short of genocide entrenches Eurocentric understandings of personhood that are limited to homo sapiens, which is itself an act of violence against these peoples. Ironically, the entrenchment of this dichotomy also enables the logic of ‘dehumanization’, in which human communities are likened to reviled nonhumans (for instance, cockroaches) in order to motivate violence against them. As I have argued elsewhere (Mitchell 2014), the logic of generalised ‘dehumanisation’ is uniquely effective in Western frameworks in which the lack of ethical status for beings other than humans removes obstacles to their mass destruction. Within worlds in which human and nonhuman persons are linked through complex systems of law, treaties, protocols and long-standing relations, this claim is illogical. Within Western settler states, however, it functions as a means of justifying ongoing violence against Indigenous peoples and their relations.

In addition, by framing extinction as a problem for a universal figure of ‘humanity’ (more on this to follow…) mainstream discourses of extinction obscure its profound entwinement with race and racializing structures. These examples make it clear that eliminative violence is targeted on specific groups of people and their other-than-human relations, as defined by the aggressors. Indeed, patterns of genocidal violence extend racializing categories, hierarchies and eliminative impulses to other-than-human peoples. Just as approaching gender violence separately from race effaces their intersection, understanding extinction as distinct from race is deeply misleading. This is not only because racialized people are more likely to suffer from the effects of ‘extinction’ and other forms of environmental racism (which they are). It is also because the eliminative violence that drives extinction extend and enact race beyond the category of homo sapiens by defining particular groups against white settler norms and as threats to the settler society. To approach extinction separately from issues of race is, therefore, to miss one of its most defining features.

Extinction is not a metaphor – in many cases, it is quite literally genocide enacted against Indigenous peoples and their other-than-human relations. To treat it as a metaphor is to obscure and participate in the structures of violence that drive it. From this perspective, in addition to active decolonisation efforts, and the resurgence of Indigenous peoples, addressing extinction also requires attacking the genocidal, racializing, eliminative logics that are diffused throughout settler (and other) states. It also requires honouring the unique relations, worlds and peoples that are targeted by these discourses and practices.

#### In settler research spaces we have a responsibility and role of the ballot to center indigenous knowledge, and to contribute to unsettling the academy—our work connects different discussions of indigeneity and decolonization to the rest of the globe.

Sium et al 12 (Aman Sium, Chandni Desai, Eric Ritskes, Ontario Institute for Studies in Education, University of Toronto, Sium identifies as being Tigrinya, indigenous, African, and Eritrean, Ritskes is Zhaganash, Towards the ‘tangible unknown’: Decolonization and the Indigenous future, Decolonization: Indigeneity, Education & Society ¶ Vol. 1, No. 1, 2012, pp. I-XIII, JKS)

Decolonization does not exist without a framework that centers and privileges Indigenous life, community, and epistemology. In that regards, it becomes vitally important, despite our goals of understanding and promoting a global Indigenous undertaking, to center and recognize the local settler colonial contexts on which we, as authors, are situated. As we write this, we are on unceded Haudenosaunee and Mississauga land. We do not state this to signal a particular understanding of the complexity of issues, resistance and life that this statement entails, nor in belief of an (perceived and imposed) alliance with Anishinaabeg peoples. Too often talk of ¶ solidarity and alliance gets co-opted in these ways, as ‘magic words’ to state and dispense with complexity, not understanding why they are said or what responsibility and action they might entail. We state these words as a contestation of colonial logic that, as Andrea Smith (2006) notes, “holds that Indigenous people must disappear. In fact, they must always be disappearing, in order to allow non-Indigenous peoples rightful claim over the land” (p. 68). The history of settler colonialism is one of displacement and replacement and we are each implicated in this. We state these words in recognition of the Anishinaabeg peoples’ continued right to this land, to sovereignty, and indeed, their right to exist beyond the often fetishized historical memory of settler colonialism. We do not need to state this to make it true, it simply is. ¶ It is important to recognize this particular history of colonialism, and subsequent (temporary) interruption of sovereignty, because it affects each of us. There is no escaping complicity within a settler colonial state, especially for those of us who have settled here, though complicity looks different for each of us. Complicity cannot be collapsed into simple and neat categories without historicizing the political legacy of colonialism and the way in which it manifested and continues to manifest itself both here and across the globe. It is important to consider the process and logics of colonial modernity and white supremacy, the way in which Europeans defined and classified people – as human and non-human – and then used this as a basis to conquer land and subjugate populations through enslaving, indenturing in labour, genociding and warring (Wynter, 2003, Smith, 2006). It is crucial to consider the particularities of forced movement and involuntary migrations of various diasporas and their distinction from (European) settlers that colonized and settled various lands for the purpose of capitalist expansion rooted in notions and the epistemology of “possessive individualism” (Mohanram, 1999). ¶ That being said, for those who have settled here, we have a history of interruption to recognize and rectify; as Waziyatawin (in this issue) notes, Indigenous peoples recognized, from the beginning, how Western thought and presence displaced and endangered Indigenous ways of knowing and relationships to the earth, as well as the earth itself. We have a responsibility to honor the Indigenous ‘laws of the land’ and to restore right relationships. Often the call for sustainability and ecological responsibility is framed from a settler vantage point, in belief that “this land is your land, this land is my land” so we must take care of it. For those of us who are not Indigenous to Turtle Island, we must recognize our particular responsibility to this land and its stewards. All of this is interwoven into this work and our beginning point. ¶ As such, the starting point of decolonization is not a rejection of colonialism. Rather than replace the dominant with the marginalized, or as Fanon (1968) puts it, make it so “the last shall be first and the first last” (p. 37), the decolonizing project seeks to reimagine and rearticulate power, change, and knowledge through a multiplicity of epistimologies, ontologies and axiologies. Decolonization cannot take place without contestation. It must necessarily push back against the colonial relations of power that threaten Indigenous ways of being. Alfred (2009b) and others have suggested that decolonization can only be “achieved through the resurgence of an Indigenous consciousness *channeled into contention with colonialism*” (p. 48; emphasis ¶ added). Indigenous knowledges are the starting point for resurgence and decolonization, are the medium through which we engage in the present, and are the possibility of an Indigenous future. Without this power base, decolonization becomes a domesticated industry of ideas. Decolonization is not always about the co-existence of knowledges, nor knowledge synthesis, which inevitably centers colonial logic. Whiteness does not ‘play well with others’ but, rather, fragments and marginalizes - so it must be asked: Co-existence at what cost and for whose benefit? Decolonization necessarily unsettles. In the face of the beast of colonialism, thirsty for the blood of Indigeneity and drunk on conquest, assimilation is submission and decolonization calls on those who will “beat the beast into submission and teach it to behave” (Alfred, 2009a, p. 37).