Ecologically Unequal Exchange, Transnational Mining, and Resistance: A Political Ecology Contribution to Green Criminology

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Abstract

This article draws on discourses in political ecology and green criminology to critique the ways in which transnational mining is legitimated and advanced with significant impacts on natural environments and local communities in the Global South. It examines an ongoing case of environmental conflict related to Australian mining in South Africa and explores processes of *ecologically unequal exchange*. It identifies how the corporate tentacles of transnational mining corporations circumvent and subvert regulatory oversight to exploit people, land and natural resources—with devastating environmental and social impacts. Finally, it discusses the perils and prospects faced by affected communities, as well as localized movements of resistance and environmental activism when confronting state and corporate power.

Introduction

Today, billions of dollars flow into conflict zones in Africa and beyond through the illegal exploitation of diamonds, gold, oil and other natural resources, resulting in immeasurable harm to environments and local communities. According to the World Atlas of Illicit Flows—compiled by INTERPOL, RHIPTO (a Norwegian UN-collaborating center) and the Global Initiative Against Transnational Organized Crime—environmental crime associated with such activities has overtaken traditional drug trafficking, kidnapping and ransom activities that extremist groups have used to fund their activities (Nellemann et al. 2018). While environmental crime is now recognized widely and has received varying degrees of attention from international to local-level lawmakers and enforcers, in this article, we look beyond these strictly legal definitions of environmental crime. Instead, we align with the eco-global criminology perspective posited by White (2018: 123) that crimes against the environment are frequently not defined by law as crimes at all: "many ecologically

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destructive practices are in fact quite legal, precisely because they are facilitated by nation-states as well as corporations and other powerful actors." These are the crimes of the powerful (Rothe and Friedrichs 2018) and, as Passas (2005: 776) describes them, they are "lawful but awful."

In adopting this perspective, we consider the harmful practices of the powerful associated with *ecologically unequal exchange* and its attendant structural violence. According to Frey and colleagues (2019:1), the idea behind *ecologically unequal exchange* is that "structures of social and environmental inequality between the Global North and Global South are founded in the extraction of materials from, as well as the displacement of hazardous production processes and wastes to, the Global South." We argue that the political-ecological processes associated with transnational corporate (TNC) mining in Africa provide fertile ground for exploring crimes of globalization that may "incorporate elements of state crime, political white-collar crime, state-corporate crime, and finance crime" (Friedrichs and Friedrichs 2002: 18). In so doing, we examine a case of ecological distribution conflict relating to a mineral sands extraction project being proposed and pursued by an Australian-based company, Mineral Commodities Limited (MRC), in Xolobeni in the Wild Coast region of the Eastern Cape, South Africa.

This case study draws on discourses in political ecology on *ecologically unequal exchange* (Hornborg 2009; Oulu 2016) and in green criminology (e.g., Goyes 2016; South and Brisman 2013; Walters 2017; White 2018) to critique the ways in which TNCs exploit and dispossess local communities, destroy natural environments, usurp regulatory processes and destabilize state governance (see Cooney and Sacher 2018; Goyes et al. 2017). Our goal is to apply the political ecology framework of *ecologically unequal exchange* to explore the criminogenic and structural violence associated with the interaction between an Australian mining company located in the global core (the North) and the Xolobeni community located in global the periphery (the South) (see Galtung 1990; Srikantia 2016).

Because our case study focuses on state-corporate crime in the Southern periphery, we are, in some sense, furthering what Brisman and colleagues (2018) refer to as "southernizing green criminology," as well as contributing to eco-global criminology (White 2017). On this, two points should be raised, however. First, because it is based on a literature review and case study grounded in secondary materials, this article does not claim to work within the framework of a southern criminology that seeks to engage subaltern voices (Carrington et al. 2019). Rather, it provides a theoretical lens through which ecological conflict and local community resistance to mining in the Global South may be viewed. Second, we accept Tombs' "soft critique" of the concept of *state-corporate crime* and the case-by-case nature of much state-corporate crime research that thereby fails to situate the case or grasp the larger structural issues that define state-corporate symbiosis. Tombs (2012: 175) argues that case studies of state-corporate crime "must be generated as vehicles which are operationalized through both theoretical frameworks and their related, internally consistent, conceptual tools which ground such cases in more fundamental relations and processes of contemporary capitalism and its dynamics." By framing our study within the theory of *ecologically unequal exchange* and Hornborg's (2009) five illusions that support and entrench it, our case study is able to explore the systemic and criminogenic nature of state-corporate symbiotic processes as they unfold in ecological conflicts around the globe.

Although the theory of *ecologically unequal exchange* seeks to analyze the asymmetric flow of biophysical resources between the periphery and core, it holds that "underlying such unequal flows are systems of unequal political and power relations," and by making the ecological political, *ecologically unequal exchange* "focuses on the root causes rather than symptoms of this inequality" (Oulu 2016: 448). Conversely, the dominant ideology

suggests that resistance to foreign direct investment can be understood as a binary clash between those who believe in a neoliberal path to growth, development and jobs—the "cornucopian perceptions of 'development'" (Hornborg 2009: 237)—and those who misguidedly stand in the way of this vision. We argue that this representation fails to capture a progressive counter-hegemonic position which, rather than opposing social and economic change, *seeks change*. It does so by unmasking the illusions that support and uphold the global status quo through a system of *ecologically unequal exchange* (Hornborg 2009). Resistance to extractivism in mining-affected communities in the Global South opens up the possibility of alternative discourses on social progress and environmental justice because it unmasks the five illusions that support and entrench *ecologically unequal exchange* (Hornborg 2009: 237), namely:

> (1) The fragmentation of scientific perspectives into bounded categories such as 'technology', 'economy', and 'ecology'. (2) The assumption that the operation of market prices is tantamount to reciprocity. (3) The illusion of machine fetishism, that is, that the technological capacity of a given population is independent of that population's position in a global system of resource flows. (4) The representation of inequalities in societal space as developmental stages in historical time. (5) The conviction that 'sustainable development' can be achieved through consensus.

In the case of the Xolobeni mineral sands project, we unpack the nuances of state and corporate decision making to illuminate the ways in which power, profit and conceptualizations of "progress" seek to "construct consent" around the promise of development and jobs (Harvey 2003). We explore how resistance to mining by the local community and their allies serves to expose the illusions that are the pillars of the "cornucopian development" deception peddled by the Australian mining corporation and the South African state. This resistance reveals the face of contemporary ecological conflict situated in the peripheral Global South but driven by corporate interests located in the Northern core. In addition, the case study highlights the criminological nature of the events, practices and processes at Xolobeni in order to tease out the value of a political ecology framing of green criminology. In so doing, it provides a practical theoretical alternative to a political economy perspective (Forsyth 2008) because rather than focusing on *economic* distribution conflicts (as is the case in political economy), political ecology focuses on *ecological* distribution conflicts (Martínez-Alier and O'Connor 1996). We provide a brief overview of our method in the next section. We then contextualize the Xolobeni case by highlighting briefly some key features of mining in Australia and Africa before discussing the MRC-Xolobeni ecological conflict in detail. This includes framing the alleged aggression of the corporate entity, the conflict and suffering of residents, and the ensuing community resistance within the theory of *ecologically unequal exchange* and Hornborg's five illusions.

Method

Hornborg (2009: 240) argues that "social science can and should try to account for how [local particularities of experience] are recursively related to global socio-ecological processes" (cf. Harvey 2003). Similarly, for White (2017: 8), "specific instances of criminal and harmful activity… need to be analyzed in the context of broad international social, political, economic and ecological processes." So, too, the unique and disparate cases of resistance to environmental crimes around the globe may be connected through attention to

their ecological, economic and political contexts. As Rojas-Páez (2017: 67) has argued, in understanding the experiences of marginalized and peripheral communities, and by "paying earnest attention to the experience of these groups and their practices of resistance to neoliberalism, not only can the continuation of the historical injuries caused by the extractive industries be seen but they can also be contested through justice claims." In this way, a political ecology perspective allows us to relate specific cases of environmental crime and resistance to the global processes that characterize so many cases in the Global South, despite their specific contexts and "particularities." In line with this approach, our exploratory research is framed theoretically within the *ecologically unequal exchange* global process perspective and adopts a desktop case study methodology to draw on a specific case with its own "particularities."

An exploratory case study methodology is used in this research because this style of inquiry "investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (Yin 2009: 18; see also Gerring 2006). While some claim that case studies are "prone to particularistic insights" (6 and Bellamy 2012: 105), this limitation may be over-emphasized or misrepresented in social science (Flyvbjerg 2006; Yin 2009). Yin (2009: 38) explains that "cases are not sampling units" so, therefore, should not be chosen on these grounds but with particular consideration and purpose. Case studies provide a detailed and sophisticated means to delve deeply into an issue and the resulting enriched narrative of facts, figures, and reported accounts helps to illuminate nuances of decision making, developments, key events and processes (Yin 2009). This is the purpose of our MRC-Xolobeni case study.

The impact of Australian mining interests in Africa has not been subject to a great deal of academic scrutiny—criminological or otherwise. Given the considerable scale of Australia's extractivist involvement in Africa, this research focus is important and long overdue. The identification of the need for research in this area provided the impetus for our preliminary desktop survey of Australian mining activity in Africa. We used the Environmental Justice Atlas ("EJ Atlas") (2019)—an electronic "living" repository of ecological conflict cases around the globe (see also Temper et al. 2015; Martínez-Alier et al. 2016)—to assist in exploring the scale and extent of these conflicts and then to identify potential case studies. EJ Atlas contributors include activists, advocates, community members, and scholars, whose input helps to reflect the experience and voice of affected persons and groups, particularly those marginalized and silenced in mining development discourses.

Informed by a review of the literature regarding known variables within mining conflicts (e.g., community dislocation, environmental harm, illegal activity, neoliberal and market models of governance and regulation, transnational corporatism), the variable filter function of the EJ Atlas was used to identify several high-level ecological conflicts across Africa where Australian companies were or are implicated heavily. We conducted a preliminary examination on the ilmenite mining in Richards Bay (South Africa) and southeast Madagascar, as well as coal mining in the Tete Province (Mozambique) by the megamining entity, Rio Tinto. Due to its high-profile nature and the extensive and accessible documentation of the case, we decided to focus on the MRC's mineral sands project in Xolobeni. As such, the case presented here was selected for the pragmatic reason that it was a "live" case of ecological conflict about which a great deal had been written and made available.

Following case selection, we undertook a detailed analysis of all published material pertaining to the case, with specific interest in material that intersected with themes gleaned from the literature on ecological conflict. It is worthwhile to note that a case study of ecological conflict is likely bound by the limits of the information available because the nature

of such conflicts can involve controlled or gagged communications and information, particularly regarding sensitive allegations about TNCs. Drawing from various data to capture ranging perspectives is important in a case study based on archival or documentary sources. Of the materials available and accessible in this case, we consulted a wide range of sources, including (but not limited to): MRC published material (e.g., advertising materials, annual reports, press statements, webpages); official mining sector data and related industry publications; grassroots community group publications (e.g., social media, web content) and primary accounts from community members and/or their legal representatives via a range of media; news archives (e.g., Mines and Communities South African news archives [https://www.osf.org.za/tag/mining-in-south-africa/]); Australian media sources; court documents regarding legal and bureaucratic matters; documentary and investigative journalist sources for interviews and other primary data; environmental justice NGO reports; and relevant scholarly content. Taken together, these materials inform our illustrative case study of MRC's Xolobeni mineral sands project, viewed through the lens of political ecology, *ecologically unequal exchange* and Hornborg's five illusions, thereby contributing to a novel perspective within green criminology.

Case Study: Ecologically Unequal Exchange, MRC and the Xolobeni Mineral Sands Project

Before discussing the ecological conflict in Xolobeni, we first provide some context to the case study with an overview of mining in Australia and Africa, respectively. Next, we describe the nature of the conflict related to MRC's pursuit of mining rights at Xolobeni. We then apply the framework of Hornborg's *ecologically unequal exchange* illusions to our case study in order to discuss the way local resistance serves to unmask the illusions, thereby revoking MRC's social license to operate.

Australian Mining Interests

Australian mining is described as "a formidable global enterprise" following "rapid globalization… in under a decade from being predominately domestic in focus to being one of the leading investor nations in all of the world's resource-rich regions" (Satchwell and Redden 2016: 14). In 2016, exploration and mining companies listed on the Australian Securities Exchange (ASX) were "by number the second-most numerous global investors in minerals and coal, and the most numerous in Africa" (Satchwell and Redden 2016: 1). To date, there are more than 185 ASX-listed mining and resource companies operating across 430 projects in 37 African countries (Australia-Africa Minerals and Energy Group 2017). Consequently, Australian companies today control and exploit large tracts of African land across agricultural areas, coastlines, deserts, jungles, mountains, and national parks. Although familiar players, such as Rio Tinto, have been present and visible across Africa for some time, burgeoning interest from other smaller TNCs is growing. This includes MRC, which has been pursuing the Xolobeni project for several years, in addition to its operation of a mine site at Tormin on the South African west coast.

Australian extractivism is understood chiefly with reference to Australia's vast domestic mining sector; it is considered so significant to Australia's economic, political, and social fabric that it is deemed central to the Australian national identity (Aulby 2017). On its website, the Minerals Council of Australia constructs a self-portrait as "a temporary

custodian of land" who is "committed to sustainable development and responsible environmental stewardship" (MCA 2019). Recently, this kind of imagework has become particularly contested within Australia with growing public distrust of the sector, ongoing legal disputes, media exposés, protests and socio-legal challenges (Beresford 2018; Carrington and Periera 2011; Long 2019). Outside of Australia, the favorable depiction of Australian mining fails to live up to the glossy image of its investment brochures. In fact, around the world, Australian mining companies are accused of environmental law-breaking, negligence, unfair and illegal labor practices, and violence (Beresford 2018). In 2015, the International Consortium of Investigative Journalists (ICIJ) published a report describing the allegations of illegal practices and incidents, claiming that more than 380 people died in accidents or conflicts connected to Australian mining companies in Africa alone in the years 2010–2015 (Fitzgibbon et al. 2015). It is also well documented that the promises of socio-economic gains from transnational mining (Australian or other) do not accrue to the local communities as promised, but instead leave a footprint of social and environmental degradation and displacement (Cooney and Sacher 2018). Still, Australian government entities have invested heavily in these controversial ventures, and on these matters of violence and environmental law-breaking issues, the media, the government, and academia in Australia have remained largely silent.

Australian companies are required to report overseas incidents and accidents to the ASX. This reporting requirement, however, is based on the expectation that a "reasonable person" would believe that *the company's value* could be affected by "costly investigations, production freezes or compensation pay-outs" (Fitzgibbon et al. 2015: para. 93). Under ASX rules, Australian companies do not have to issue follow-up reports of off-site social or environmental conflicts or other issues associated with their mining. Justine Nolan of the Australian Human Rights Centre has suggested that these issues get "swept under the rug… you have the opportunity for companies to just say, 'That's not our business. Yes, this is our mine and it would never have happened but for the mine being there, but, still, we're not responsible'" (quoted in Fitzgibbon et al. 2015: para. 121).

Mining in Africa

The African continent has vast natural resources which have provided a significant financial bounty for the advancement and maintenance of industrialization in the Global North. In the Republic of South Africa, apart from the extensive dismantling of communities and dispossession of people from their land under apartheid, the country has historically been subject to unbridled domestic and TNC exploitation of natural resources and widespread environmental harm (Beinart and Coates 1995). The history of primitive accumulation in Africa—chattel slavery, colonialism, neo-colonialism, the enclosure of lands, the appropriation and large-scale extraction (and destruction) of natural resources and biodiversity, and structural adjustment and "development agendas"—has been written about extensively elsewhere (see, e.g., Amin 1977; Bond 2018; Fine 2018; Onimode 1988; Schmidt and McIntosh 1996). Today, despite the overlay of democratic political institutions, many of the systems and structures that facilitated historical exploitation of African land and people remain in place through state-facilitated corporate power and ongoing accumulation by dispossession (Harvey 2004). Indeed, in Africa, the long history of exploitative and socially destructive resource extraction extends increasingly to ecologically rich and diverse environments—including marine and coastal ecosystems and conservation park areas—and

this has been accelerated by foreign direct investment and the growing presence of foreign-owned and operated mining companies (Oxfam South Africa 2018).

Global Justice Now (2017) estimates that US$41 billion a year in natural resources is plundered from African countries by external nation-states and offshore multinational and transnational corporations. The report concludes with what many scholars (e.g., Bayart et al. 1999; Onimode 1988; Schmidt and McIntosh 1996) have been arguing for years: a continent of 54 countries that should be among the most affluent in the world, given its biodiversity and rich resource base, is instead highly indebted, impoverished and politically unstable.

The facilitation of the Australian government in TNC investment in Africa, and the extent of industry reliance on government aid as a tool of trade access, is highlighted by the Centre for Exploration Targeting when they report that "the [Australian] Government's short term budgetary cuts in aid could well undermine the [mining] industry's longer term economic and strategic interests in Africa" (Satchwell and Redden 2016: 3). Still, Global Justice Now (2017) points out that losses from Africa to corporate tax havens and illegal economies far exceeds government foreign aid and loans (see also Bond 2018). Rather than mining increasing the wealth of African people, the World Bank reports that after environmentally sensitive adjustments of wealth, Africa is, in fact, losing more than US$100 billion annually from oil, gas and mineral extraction (Bond 2018). In broad terms, the case of MRC and Xolobeni is illustrative of these processes of predatory extractivism (Hargreaves 2016: 156). What sets Xolobeni apart is the extensive documentation of and—to date, the success of—community resistance there.

The Xolobeni Mineral Sands Project

The region of Xolobeni is a cluster of villages located in Pondoland (South African east coast)—often referred to as "The Wild Coast." The area is recognized for its rich and rare flora and fauna, and it has been identified as one of the world's twenty-five most threatened biodiversity "hotspots" (South African National Biodiversity Institute 2007). The Xolobeni region is occupied by Indigenous AmaMondo people as communal land that is used primarily for subsistence farming (Ledwaba 2018). In this environmentally significant and sensitive region, there is a major mineral sands deposit—stretching twenty-two kilometers in length, 1.5 km in width, fifty meters in depth and estimated to contain 139 million tons of titanium.

Since 2003, the Australian company, MRC, has pursued this natural resource, through what it refers to as the "Xolobeni Project" (MRC 2016). MRC has a "questionable" record in the Western Pacific, including reported "social dislocation" and "ongoing environmental impacts" in the Solomon Islands and Papua New Guinea (Ashton 2017: 15). In addition, although MRC has not yet been successful at securing and commencing the project due to ongoing community resistance, it owns and operates the controversial Tormin mine (on the west coast, 400 km north of Cape Town) via a South African subsidiary. Much like the experience with MRC in the Western Pacific, the Tormin project has been highly contentious. According to various reports, MRC has failed regional social and labor plans, committed numerous breaches of environmental regulations, including unsanctioned mining activity and expansion, and has expressed unwillingness to accept any accountability for injurious actions or mitigate any harms caused (Ashton 2017; Jordan 2015; Oxfam South Africa 2018). In 2015, tensions over labor conditions culminated in worker strikes and protests, and numerous claims have been made that senior management bullied, intimidated

and threatened workers and community activists (Gontsana 2015; Jordan 2015). Recently, intimidation has also taken the form of legal action with MRC alleging defamation and bringing a strategic lawsuit against public participation (SLAPP) against two attorneys and a community activist opposed to the MRC Tormin mining operation (Maregele 2017). Whereas SLAPP suits have been used against environmental activists and protesters around the world, ironically, SLAPPs "provide insight into those strategies that most threaten corporate interests" (Salama and White 2017: 525). Their use by MRC draws attention to the extent that the company perceives local resistance to its mining as a serious threat.

In its efforts to enter and engage the South African minerals market, MRC has predominately used its South African subsidiary (Mineral Sands Resources or MSR) and its local Black Economic Empowerment (BEE) affiliate structures. In fact, MRC was granted approval to mine at Tormin only after a complex and opaque partnership was established with a BEE entity (Gqada 2011; Gentle 2016), with origins on the other side of the country, in the Xolobeni region (MRC 2014). Ashton (2017: 115) notes that key Xolobeni residents, who are vocal mining advocates, were "set up in a company" doing business at Tormin, and that a loan from MRC to the BEE entity established for Tormin "has in effect been used to fund the conflict over prospecting and mining rights in the Xolobeni area" (Ashton 2017: 115). Activists against the mining at Xolobeni and researchers who have investigated the case (see, e.g., Gentle 2016; Gqada 2011) contend that despite the portrayal of the local affiliate as community-based and oriented, they are ultimately a local prop being used to legitimize the project. Gentle (2016: para. 9) notes that the strategy of the Australian mining company was to:

> set up a number of vehicles that satisfy the requirements of South African shareholding, co-opt BEE partners who can be claimed to represent the community, and who have links with senior figures in the government and who hold the mining and exploration licenses so these are at a formal distance from the MRC.

Despite the successful cooptation of key local interests to construct consent, to date, the project has been resisted successfully by the Xolobeni community. This resistance has led to reports of more brazen tactics by the mining company and its local supporters. For example, in 2009 it was alleged that a local mining advocate had fraudulently prepared a list of over 3000 forged signatures of residents—some of whom were deceased—claiming "prior, free and informed consent" of the community to the mining project (Clarke 2018). Most seriously, there have been allegations of assassinations of community activists opposed to the mining, including the murder of local Amadiba Crisis Committee (ACC)[1] activist, Sikhosiphi "Bazooka" Rhadebe, in 2016. The murder took place in front of Rhadebe's son, who described the offenders as dressed as police officers (Robertson 2016). Before Rhadebe's death, he had warned other ACC members of a "hit list" including their names, leading many to conclude that he was the victim of a hit squad. Other members have subsequently received death threats (Watts 2018: para. 3). Apart from the murder of Rhadebe in 2016, allegations of other murders have also been reported, alongside ongoing intimidation and violence against those who have publicly opposed the mining project (see Pearce 2017; Washinyira 2016). Following numerous incidents, local activists lodged a complaint with the South African Police Services (SAPS) and the Eastern Cape Human Rights Commission regarding police bias and failure to conduct investigations

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[1] The Amadiba Crisis Committee (ACC) is at the center of the Xolobeni resistance and represents those local community members opposed to the mining proposal.

with due diligence (The WoMin Collective 2017). Moreover, the South African Human Rights Commission released a statement condemning the murder of Rhadebe, whom they described as "a selfless human rights activist" (2016: para. 1). In contrast, the mining company's Australian CEO suggested that the murder had no relevance or relationship to the mining project, advancing instead the opinion that the murder was simply part of South Africa's high crime rate (Clarke 2016).

Following public outcry in South Africa and beyond, and with many fingers pointing in its direction, MRC announced that it was divesting its shareholding to a South African private company (MRC 2016). While it is not the purpose of this article to try to uncover the murky arrangements around this proposed divestment, even a cursory exploration reveals the lack of transparency regarding the nature of the relationships and arrangements that exist between the Australian company, its proposed divestment company (which is listed as a provider of financial intermediation services), and its BEE partner. Gentle (2016: para. 12–13) notes: "Unlike the publicly listed MRC in Australia, all these vehicles are private companies shielded from public scrutiny, with unknown shareholders…. The complexities [of shareholding] often have to do with ensuring tax avoidance, debt leveraging, litigation avoidance, co-opting compliant state officials." Despite MRC's 2016 divestment announcement, due to a government instituted moratorium on the mining decision following Rhadebe's murder (Davis 2017), divestment did not proceed and the Xolobeni project was still listed as an MRC project in the MRC 2017 Annual Report (MRC 2017).[2]

While the announcement of MRC's divestment and the subsequent moratorium placed on the Xolobeni Project might be considered a "win" for the community, local activists contend that the moratorium was aimed at giving the state time to "demobilize resistance in the community and 'strategize' how best to lay the ground for the titanium mining to proceed" (The WoMin Collective 2017: 426; see also Davis 2017). The chairwoman of the Amadiba Crisis Committee expressed the view that the moratorium created a period of intensified risk of violence for local activists (Davis 2017). In a statement following the MRC announcement, the Amadiba Crisis Committee note:

> The Xolobeni Project should not be sold to anyone … It is a worthless project and must be closed. Instead we fear state funds are now about to be used to fill the coffers of the corrupt and violent MRC. And the same people remain in the shadows (quoted in le Cordeur 2016: para. 8–9).

Apart from the violence discussed above, if the mining project proceeds, the structural violence and immiseration associated with the Xolobeni project is expected to impact 10,000 people (Payn 2016). The EJ Atlas lists various likely impacts of the mine, including aridity, deforestation, food insecurity, loss of biodiversity, pollution of land and water, and soil erosion. Potential health implications include pollution exposure risks, work injury accidents, malnutrition, and mental health complications, which may arise because of dislocation and degradation of agricultural capacities.

Even before mining has commenced, local people in Xolobeni have already been adversely affected by the presence and activity of the MRC and its affiliates. Those vocal and active in their opposition of the mine continue to be victimized; in September 2018, violent clashes broke out, resulting in police use of teargas, stun grenades and further allegations of death threats against the community (Amnesty International South Africa 2018).

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[2] At the time of writing, the status of the ownership of the project is unclear.

Violent clashes broke out again between police and local activists in January 2019 as the Minister of Resources returned to Xolobeni to consult with the community. The Minister of Resources later announced that he would arrange an independent survey of local residents to be verified by the courts to settle the Xolobeni mining issue once and for all. Activists remain skeptical as to the possibility of an independent process taking place and continue to resist.

The Resistance: A Counter-Hegemonic Position

Themes of land and livelihood have been central features in historical Xolobeni struggles of resistance to enclosure of their land and "development" projects (see Gqada 2011; Letsoalo and Rogerson 1982). Nonetheless, the current community resistance to mining has not been embraced by everyone at the local level and some community members are in strong support of the mine. According to Bennie (2011: 46), "debates around the mining signal more than only orientations around anti- or pro-mining, but varying conceptions of development." This is reflected by those who advocate for ecotourism to stimulate the economy through environmental protection and conservation, on the one hand, and mining, on the other (Gqada 2011; Tessaro and Kepe 2014). Local mining advocates argue that development is desperately needed in the area and will be beneficial for the region, particularly for infrastructure and for generating employment (Bennie 2011; Gqada 2011; Tessaro and Kepe 2014). Those who oppose the mine, however, along with mining-affected communities around the globe, reject these mainstream economic assessments of the benefits of mining. They argue that the possible benefits are exaggerated, that they exclude many social costs, and that they underestimate the value of nature (Martínez-Alier 2007). They have also argued that government officials or representatives of companies deliberately create and exploit community divisions, seeking to isolate and stigmatize those opposing mining (GroundWork, Centre for Environmental Rights, Human Rights Watch and Earthjustice 2019: 2). The history of extractivist mining elsewhere in South Africa and Africa, more broadly, attests to the fallacy that mining leads to prosperity for the communities near the mine site (The WoMin Collective 2017). The relationship between communities and mining companies in Africa tends to be "Faustian in the extreme" (Bebbington et al. 2008: 888).

The protection of land, sense of place, and the natural resources of the area for future generations is central in the position taken by the ACC (see, e.g. Davis 2017; Ledwaba 2018; Watts 2018), which frames its resistance to mining in Xolobeni as a progressive force for change. It states its mission as follows: "The coastal Amadiba community struggles against open cast mining and imposed 'development'. We want real development of our community" (ACC Facebook n.d.). The ACC has initiated and organized a wide range of resistance strategies, demanding "The Right To Say No" and its rights to free prior and informed consent. This has included mass mobilization of the local community through blockades and protests, judicial activism, petitioning and official complaints, and development of alternative knowledge via dissemination of reports, newsletters, publication of online material, and social media engagement (Payn 2016; The WoMin Collective 2017). Resistance to the Xolobeni Project has also drawn on the support of multiple allied national and international organizations and NGOs (Payn 2016) and has received local and international media attention.

In early 2018, the ACC launched a court battle against the Department of Mineral Resources and MRCs subsidiary company over mining rights at Xolobeni. In November 2018,

the Pretoria High Court in South Africa found that while the informal rights of customary communities had not been protected by law, they now had the right to decide what happens with their land. Going forward, the Minister of Mineral Resources will have to obtain full and formal consent from the Xolobeni community, as the holder of rights on land, prior to granting mining rights. This judgment has been hailed as groundbreaking for other communities in South Africa in similar situations (Mnwana 2018).

In response to the Xolobeni judgment, the South African Minister of Mineral Resources said that the government will look to appeal parts of it. He commented publicly that "within the next 10 years the right to issue licenses is systematically shifting from government to communities and if we do that there will be no mining. …Mining is being treated like a curse rather than a blessing" (Mantashe cited in Cele 2018: para. 4). This statement reveals the South African government's recognition that across the country, local communities do not want mining; the precedent set in law in the matter of Xolobeni might well lead to communities throughout South Africa to oppose mining.

In the same way that mobilized local communities are drawing on a growing range of strategies and campaigns to resist TNCs, so, too, are TNCs and state actors utilizing a host of tactics in their pursuit of consent from the communities with whom they are engaged. TNC mining companies seek to gain access to resources through the projection of the illusions that support *ecologically unequal exchange* towards the Global North, where mining operations are legitimated via a perceived license to operate worldwide. In countering mining proposals, resistance movements, such as that led by the ACC in Xolobeni, lay bare the reality of *ecologically unequal exchange*, the illusion of social license to operate, and the structural violence associated with predatory extractivism mediated by the cooption of local political elites in the Global South.

The gradual escalation of ecological conflict, and the use of more extreme measures (including direct state violence against civilians) to quell dissent, ironically highlights the extent to which TNCs and their state compradors perceive grassroots resistance movements as representing a legitimate threat. Conde (2017: 86) suggests that around the globe and across the political spectrum, there is a "growing intolerance to social resistance to extractive projects." By exposing the corporate social responsibility policy agenda, globally organized movements against TNC mining make it increasingly difficult for TNCs to construct consent. Faced with this, White (2013) suggests that the state may escalate its use of police powers independently or TNCs may enforce their will by threatening to withdraw their investment if the host state does not exercise greater police powers over protests. According to Murphy and Jammulamadaka (2017), the exercise of police as an "exploitation tool" is particularly pronounced in a nation state, such as the Republic of South Africa, where corruption is widespread. With a debt burden estimated at 57% of GDP (63% if the state-owned utility Eskom's guarantees are included) (Liedke 2019), the South African state is desperate for foreign investment and communities engaged in resistance in mining-affected communities are increasingly faced with harassment, intimidation and violence. According to a report by GroundWork, Centre for Environmental Rights, Human Rights Watch and Earthjustice (2019: 2), the "origin of these attacks or threats are often unknown. So are the perpetrators, but activists believe they may have been facilitated by police, government officials, private security providers, or others apparently acting on behalf of mining companies."

Discussion

Ruggiero and South (2013: 13) argue that neoliberal discourses rationalize "harm against humans and the environment" as the inevitable outcome of economic growth, such that effectively "the entire planet is given to those who are most capable of exploiting it." We argue, here, that in the case of the many mining-affected communities in the Global South, the land and resources are not "given," but rather *taken* in the face of fierce opposition and resistance. This taking *and* resisting has been ongoing since modern colonial times.

According to Hornborg (2009:237), in a zero-sum, finite world, where there are limits to growth, the "acknowledgement of a global environmental 'zero-sum game' is essential to recognizing the extent to which cornucopian perceptions of 'development' represent an illusion." Central to this illusion of "development" lies a tacit assertion of the natural and inevitable state of global power imbalance, and acceptance of accumulation by dispossession, as well as its attendant structural violence in the Global South (Harvey 2003). Following Hornborg (2009), we assert that the illusion of "development" created by the state-corporate bloc, represented here by the Australian mining company, MRC, is maintained through five key interdependent "illusions" that seek to make it difficult to recognize the activities and incidents at Xolobeni as a case of *ecologically unequal exchange*. We use these five illusions as points of departure to contend that they close down debate around alternatives to the current global status quo and therefore prolong and deepen *ecologically unequal exchange* and its associated harms. As Hornborg (2009: 256) maintains, the failure to acknowledge the illusions that prop up ecological harm serves to sustain industrial growth and imperialist expansion while simultaneously "postponing systemic crisis and obstructing rational societal negotiations that acknowledge the political dimensions of global ecology." Unmasking these illusions opens up the possibility of an alternative discourse based on social and environmental justice.

The first illusion is the artificial separation of scientific perspectives into discrete categories, such as "ecology," "economy" and "technology." Hornborg (2009: 239) suggests that these constructs are, in fact, contingent cultural categories that "train us to think about our socio-ecological realities in particular ways." The separation of these perspectives prevents a synthesis of knowledge in each of these areas which would serve to expose the uneven impacts of economy and technology in one part of the globe on ecological systems in another. For the resistance movement in Xolobeni, mining is associated unequivocally with air, land and water pollution, forced resettlement and a loss of place and livelihood, human health problems, and political corruption. For the local environmental defenders and activists, ecological defense is about cultural, economic and social survival. Social wellbeing is understood to be dependent on local control of natural resources in such a way that the health of air, land and water is maintained for future generations.

The illusion that the operation of the market economy is tantamount to reciprocity is perhaps the most clearly contested illusion in our case study. International market trading based on prices set by the market is not "tantamount to reciprocity" but instead serves to redistribute resources from the periphery to the core (Hornborg 2009: 237). This illusion can be unmasked only "by identifying, beneath the flows of monetary exchange value, measures of real resources such as energy, labor time, and hectares of productive land" (Hornborg 2003: 215). As is evident in the Xolobeni case, TNCs will actively seek to mask this lack of true reciprocal exchange by co-opting and manipulating local figures of influence in the community through incentives, and the promise of development, jobs and infrastructure. Even without delving into the money-trail, our case presents evidence of

the corrupting influences associated with TNC mining under the guise of creating conditions for "social license to operate." The community resistance movement in Xolobeni and their allies do not regard mining as development and see this feigned reciprocity for what it is—a strategy that seeks to allow MRC to extract profit with minimal benefit to the local community, while distancing itself from direct responsibility for environmental harm and local conflict that ensues.

Hornborg's third illusion is that of "machine fetishism." Conventional economics is, for him, an ideology that misrepresents industrial "production" as a generative process because of the value that is ascribed to money. Rather than representing intrinsic value, he argues that the fetishization of machine technology comes at the cost of the land and natural resources that support the planet (Hornborg 2009). In addition, the justification for harnessing land and labor in the Global South to support the ever-expanding "technomass" in the Global North is framed by economists and technocrats, who propose that "rural people in the South are the ones who should be grateful—for *the opportunity* to 'develop'" (Hornborg 2009: 244 (emphasis added)). In fact, machine fetishization implies a zero-sum "game" involving uneven resource flows that benefit the Global North at the expense of the Global South (Hornborg 2012). The resistance to mineral sands mining in Xolobeni exposes the illusion that meeting the demand for titanium to reproduce and expand specific components of the Northern "technomass" is a *natural and inevitable* process. In doing so, the activists and resisters in our case study define the value of the Xolobeni environment in a way that challenges that of the state-corporate bloc—a view that conceives of the dunes in purely monetary terms.

The fourth illusion depicts the South as (just) needing to "catch up" to the North—and that this is just a matter of focusing on the (supposed) drivers of economic growth in the South, such as mining. Hornborg (2009:239) argues that "modern perceptions of 'development' can be viewed as a cultural illusion, confusing a privileged position in social space with an advanced position in historical time." In fact, the illusory cornucopian development paradigm (Hornborg 2009) is at the heart of the argument put forward in support of TNC mining in our case study. Activists and local resisters, however, do not perceive the Xolobeni mine as an opportunity for development. Instead, they regard it as opportunistic dispossession, lacking community participation, consultation, or consent. This is a consistent trend in other cases of extraction in the Global South (see, e.g., Conde 2017; Goyes et al. 2017). Indeed, where legitimate community consultation processes and procedures are embedded, communities tend to reject mining (Walter and Urkidi 2017).

The fifth illusion is that "sustainable development" can be achieved through consensus when, in fact, the structure of the global economy is driven by "dispossession" (Cooney and Sacher 2018; Harvey 2003)—and "accumulation by dispossession is the underlying logic of unsustainable socio-ecological processes" (Hornborg 2009: 245). This illusion seeks to exclude the possibility of recognizing the current socio-ecological crisis *as a crisis* or conceiving of an alternative. As Hornborg (2009: 237) notes, the "global anticipation of socio-ecological contradiction and disaster is being ideologically disarmed by the rhetoric on 'sustainability' and 'resilience'." The emphasis in Northern discourses on sustainability and resilience includes calculations proposed to replace the GDP, such as the World Bank's Adjusted Net Savings calculations. These new calculations supposedly take into consideration the value of human and natural capital (environment) to ensure that *the market* factors in the loss of environmental values, thereby driving more sustainable growth. Under the conditions of *ecologically unequal exchange*, however, the "ecological bean counting" of environmental economists (Bond 2018) will, arguably, support the state-corporate bloc by monetizing and commodifying nature according to values identified in the Global North.

Indeed, the resistance to mining in our case exposes this strategy of market-led monetizing of "natural capital" as the "underlying logic of unsustainable socio-ecological processes" that lie at the heart of *ecologically unequal exchange* (Hornborg 2009: 245). While this illusion seeks to shut down the spaces for alterative discourses on economic and social wellbeing, the resistance in Xolobeni exemplifies a prefigurative politics and an alternative to the illusion of "sustainable growth."

Our observations of the conflict surrounding the Xolobeni mine align with other experiences from the Global South (e.g., Conde 2017; Cooney and Sacher 2018; Dwivedi 2001; Goyes et al. 2017), which demonstrate that the globally destructive trends of TNC extractivism constitute a form of state-corporate environmental crime (e.g., Friedrichs 2009; Lasslett, Green and Stańczak 2015; Salama and White 2017; Stanley and McCulloch 2013). In addition, while localized activist and TNC mining resistance movements are focused on preventing mining on their own lands, they are increasingly aligning with broader social and environmental justice networks, both in the Global North and the Global South. These groups converge around individual cases of injustice to move the individual and "particular" instances into a broader struggle against *ecologically unequal exchange*, structural violence, and harm to local communities and ecosystems. Indeed, there is increasing acknowledgment of the role of a global environmental justice movement, and a recognition that this movement may lay the foundations for a "counter-hegemonic historic bloc" that is centered on social and environmental justice (Brand 2012; Doherty and Doyle 2006; Martínez-Alier et al. 2016; Temper et al. 2015).

Concluding Comments

Until recently, criminology has ignored the crimes of the powerful (for a discussion, see, e.g., Barak 2015; Rothe and Friedrichs 2018). We argue that through the examination of specific cases, one contribution a green criminology can make is to shine light on the systemic criminogenic nature of the environmental crimes of the powerful—not as an historical exposé but as a current account of the relationship between actors in the Global North and Global South. We see the green criminological endeavor as increasingly pressing, salient and, indeed, *necessary* for understanding the nature of the global environmental crisis and its specific manifestations in the Global South.

Specifically, we argue that concepts from political ecology, such as *ecologically unequal exchange*, which are central to argument for justice in the Global South, may be applied fruitfully to understanding the crimes of the powerful in all reaches of the world. This is because *ecologically unequal exchange* "focuses attention on broader systems of power and influence rather than only on proximate and local forces" (Oulu 2016: 448). Moreover, because it views "ecological systems and environmental problems as inherently *political*, political ecology challenges "apolitical approaches, such as "ecoscarcity" and "modernization" arguments (Oulu 2016: 448), which dominate the mainstream framing of the current global environmental crisis. The resistance to mining and local environmental activism in Xolobeni and myriad other places in the Global South serves to unmask the *ecologically unequal exchange* illusions and opens up space for alternative discourses on social and environmental justice. In this way, we maintain that green criminology benefits from the incorporation of a political ecology perspective that is framed by the experiences of southern resistance movements who have been resisting dispossession since colonial times.

While resistance groups in the global periphery may not necessarily perceive themselves as environmental activists or advocates, but as inadvertent defenders of their basic human rights, these groups have transformed to ally with wider social and environmental justice movements, and engage in broader modes of resistance to dismantle the illusions constructed around them. The new era of environmental activism, which unites the ecological, economic and social at a local level, is both dynamic and dangerous. While powerful state and corporate actors typically work to construct consent and dismiss and delegitimize the actions of those resisting them, these local resistance movements are effectively revoking their social license to operate by exposing the development illusions that prop up *ecologically unequal exchange*. In this way, they pose a genuine and deep threat to the global status quo.

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