

# Future Pasts

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## **Dissonant sustainabilities?**

Politicising and psychologising antagonisms in the conservation-development nexus

**Sian Sullivan**

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Bath Spa University, School of Oriental & African Studies, University of Edinburgh

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Save the Rhino Trust, and Mamokobo Film and Research



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[www.futurepasts.net](http://www.futurepasts.net)

[futurepastscontact@gmail.com](mailto:futurepastscontact@gmail.com)

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**Future Pasts** draws on Arts and Humanities research methodologies to document and analyse culturally-inflected perceptions and practices of sustainability. The project has a particular geographical focus on west Namibia, where three of our core research team have long-term field research experience.

The project seeks to:

- enhance understanding of sociocultural, economic and environmental changes in historical and post-independence contexts;
- document and support cultural heritage and indigenous knowledge regarding present and historical cultural landscapes of west Namibia;
- extend analysis and understanding of the historical ecologies of the Namib;
- interrogate interpretations of 'sustainability', particularly those contributing to the promotion of a growth-oriented 'green economy';
- foster cross-cultural public discussion of concerns relating to environmental change and sustainability;
- critically engage with the power dimensions shaping whose pasts become transferred forwards to the future in contemporary approaches to environmental conservation and sustainability.

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# Dissonant sustainabilities? Politicising and psychologising antagonisms in the conservation-development nexus

Sian Sullivan<sup>1</sup>

## Abstract.

Reflecting on more than twenty years engagement with the idea that development and economic growth are essential for ensuring environmental conservation and sustainability, a key experience for me has been that of *dissonance*. In this working paper I draw on the concept of ‘dissonance’ as explored some decades ago by social psychologist Leon Festinger in *A Theory of Cognitive Dissonance* (1957). I focus in particular on how the coherence of sustainability discourses can be maintained precisely by managing, and often excluding, contradictory information, however robustly argued and evidenced that information might be. My intention is to highlight ways in which this management of dissonance is also ideological in nature, with implications for understanding the antagonisms with which sustainability discourse is infused.

**Key words.** cognitive dissonance; sustainability; conservation and development; Namibia; CBNRM; conservancies; trophy hunting; biodiversity offsetting; blockchain technology; cryptocurrencies; ideology

## 1. Introduction<sup>2</sup>

In more than twenty years engagement with the idea that development and economic growth are essential for ensuring environmental conservation and sustainability, a key experience for me has been that of *dissonance*. I will explain in more detail below what I mean by ‘dissonant sustainabilities’ in the title of this paper. In brief, however, an example might be the frequent disconnection between public narratives of integrated conservation and development outcomes in west Namibia (where I have worked on and off since 1992) with observed patterns and voiced impacts in specific circumstances ‘on the ground’. Another example might be the idea that development impacts on habitats in places can be satisfactorily offset or exchanged through purchase of quantified biodiversity units to be established in the future somewhere else. I discuss both these examples more fully below.

In this working paper, I take the experiential phenomena of *dissonance* as a matter of concern in itself. Some questions I’ll be asking are:

- How do social scientists and humanities scholars engaging with the conservation-and-development nexus understand and manage the dissonance we frequently face in our

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<sup>1</sup> s.sullivan@bathspa.ac.uk

<sup>2</sup> This paper was first presented as a keynote lecture at the conference *The Politics of Sustainability: Rethinking Resources, Values and Justice*, organised by the Finnish Society of Development Research in Helsinki, 14-16 February 2018 – see <http://www.kehitystutkimus.fi/conference/>. Nb. All online references were last accessed on 30 March, unless otherwise stated.

research?

- How do we manage how others might manage the dissonance that our work may generate for them?
- How do we continue to embrace the opportunities for learning about difference that are part and parcel of our methodologies, when this learning might itself generate significant cognitive dissonance for us as researchers? This question relates in particular to social anthropology, a discipline that through field research in frequently unfamiliar geographical and cultural contexts makes a virtue of the attempt to make what is strange familiar and what is familiar strange (for example, Malinowski 1922; Eriksen 2001; see discussion in Sullivan 2016a, 2017a); and in doing so fully celebrates rather than polices the different ‘truths’ through which people bring their worlds into being.
- But conversely, how do we remain sane and grounded in a present moment of ‘alternative facts’, ‘fake news’ and ‘post-truth politics’, in which *dissonance* regarding what is understood to be true seems to be the political order of the day (regarding this point specifically, see discussion in Sullivan 2017a: 232-235).

In framing these questions like this, I am drawing on the concept of ‘dissonance’ in the sense proposed some decades ago by American social psychologist Leon Festinger in *A Theory of Cognitive Dissonance* (1957). In the next section I will outline some key dimensions of this theory and begin to indicate some ways in which I think it is useful for understanding the politics of sustainability.

## 2. On Cognitive Dissonance

The starting point of the theory of cognitive dissonance is that ‘we do not like inconsistency. It upsets us and it drives us to reduce [whatever we are experiencing as] inconsistency’ (Cooper 2007: 2). Indeed, the theory proposes that ‘the greater the inconsistency we face, the more agitated we will be and the more motivated we will be to reduce it’ (*ibid.*). This means that we will engage in various strategies to reduce, rather than amplify, the experience of dissonance (Festinger 1957: 18). Some of these strategies may take rather *artful* or perhaps unexpected, even pathological, forms – an aspect to which I return in more detail below.

The theory asserts that the inconsistency being dealt with is *cognitive*. It is focused on the (in)consistency or *dissonance/consonance* between what Festinger thought of as ‘elements of knowledge’: ‘pieces of knowledge’ someone might hold about reality. The theory proposes that a state of psychological *dissonance* arises when two cognitive elements are inconsistent with each other. An example might be the psychological dissonance or tension that arises

when a person performs actions that are incongruent with their beliefs. Clearly this sort of situation arises often. For example, it is perhaps dissonant that I developed this paper for a conference on environmental sustainability to which I flew from the UK, even though I am concerned about the contributions of CO<sub>2</sub><sup>3</sup> emissions to anthropogenic climate change and its negative implications for the sustenance of a familiarly livable global environment.

On this point, the theory proposes further that the magnitude of dissonance increases in relation to the value of mismatching elements. This aspect, of course, is extremely important when thinking about the environmental consequences of economic development choices. How, for example, do I arrive at an experience of cognitive *consonance* when I learn that *no net loss of biodiversity* will arise through strategies to *offset* the impacts on species and habitats caused by major infrastructure or extractive developments, if this proposition is entirely *dissonant* with all my understandings of ecological processes and dynamics? Again, I will return to this example below. The cognitive dimension of dissonance becomes increasingly complex when taking seriously the sometimes very different conceptions or knowledges people have regarding the nature of being, and especially the sources of agency in the world. As Festinger (1957: 14) observes, what is dissonant or consonant varies culturally. This dimension is engaged with in particular in anthropological research regarding the diverse culture/nature ontologies through which people may understand and make their worlds (for example, Griaule 1975[1947]; Hallowell 1961; Taussig 2010[1980]; Descola and Pálsson 1996; Viveiros de Castro 2004, 2013; Blaser 2013; Descola 2013; Sullivan 2013a, 2016a; Holbraad *et al.* 2014; Burman 2017; for circumstances in west Namibia specifically see Sullivan 2017a and Hannis and Sullivan in press).

Finally, the theory proposes that situations of cognitive dissonance require *management* so as to reduce the psychological stress generated by the dissonance. In the personal case I mention above, I might have all sorts of ways of rationalising my air-travel to a conference on sustainability so as to reduce the dissonance between my beliefs and my actions. For example, I might tell myself that it is more important overall to have a platform from which to share my concerns with a wider audience. I might in particular rationalise that I want to be able to do what I can to support younger scholars who may be encountering the sorts of confusion I have experienced through the experience of dissonance in the contexts in which I have worked. Such a rationalisation does not remove the dissonance between my actions and beliefs, but it does help to bring the different and dissonant elements of cognition closer together, and thereby to reduce the state of tension associated with the discordance between them. An additional way of managing dissonance that we all do to varying extents is to engage in forms of *confirmation bias*, i.e. seeking out information that confirms, rather than disproves, a belief we already hold.

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<sup>3</sup> Acronyms: BDO – biodiversity offsetting; CBNRM – Community-Based Natural Resources Management; CO<sub>2</sub> – carbon dioxide; MET – Ministry of Environment and Tourism; NACSO – Namibian Association of CBNRM Support Organisations; NAE – Natural Asset Exchange; NGO – Non-Governmental Organisation; NNF – Namibian Nature Foundation; TEEB – The Economics of Ecosystems and Biodiversity; WAVES – Wealth Accounting and Valuation of Ecosystem Services

Festinger goes further, however, by observing that the ways in which a person or group of people maintain the coherence of their beliefs is often through the active *exclusion* of information contradictory to those beliefs, however robustly evidenced that information might be. Festinger had previously – and famously – explored in detail a situation in which a group of people managed cognitive dissonance *not* by changing perceptions in the wake of disconfirming information, but by finding ways to *strengthen* commitment to their original belief. This case is worth outlining in some detail.

In the early 1950s colleagues of Festinger conducted covert research leading to membership of a social group which understood that the end of the world would take place at midnight on 21<sup>st</sup> Dec 1954 (Festinger *et al.* 1956). In following the messages from an alien planet received by a Michigan woman through automatic writing, they ‘had left their homes, jobs and partners and given away their possessions in order to be ready for the arrival of a flying saucer that would rescue them from the doomed planet’ (Gray 2013: 72).

Festinger and his team wished to observe what the group would do in the face of the *disconfirming evidence* that would surely arise when the end of the world did not in fact happen. A *rational* perspective would perhaps predict that the group would change their beliefs in the wake of the disconfirming evidence, i.e. in the wake of exposure to the fact that the end of the world did not take place at the appointed hour. In fact, however, and as predicted by Festinger and his team, the opposite occurred. The group reduced the dissonance between their beliefs and the fact that the end of the world did not take place by *strengthening* their beliefs. They did this through incorporating new supporting and confirming information, and through seeking social support by becoming increasingly public about their beliefs. Specifically, ‘they interpreted the failure of doomsday to arrive as evidence that by waiting and praying throughout the night in question they had succeeded in preventing it’ (Gray 2013: 73). In doing so, they were able to emerge even more convinced of the truth of their beliefs.

A present-day version of this sort of scenario is embodied by the Flat-Earth Society denying that the recent space-launch by billionaire businessman Elon Musk proves that the earth is a sphere (see, for example, Graham 2018). They instead deploy various arguments to maintain that the launch itself was a hoax and that there is nothing about the footage released from the launch to demonstrate the spherical nature of the earth.

The implication of these and other cases is that people will work harder to reduce cognitive dissonance by *strengthening their beliefs*, than by *rationally changing their beliefs* in the face of disconfirming evidence. Indeed, the theory predicts that when we are invested in a given



perspective we will expend great effort to justify retaining the challenged perspective<sup>4</sup>, even when – perhaps especially when – confronted with disconfirming evidence.

This, I think, is both a troubling and an illuminating observation. It is troubling because it suggests that a humanist assumption of rationality leading to incremental progress might itself be a belief that is dissonant with observed reality. Indeed, we only have to look around at some of the key events of the contemporary moment to see how collectively we seem to be regressing rather than ‘progressing’ on varying fronts. On this point I am turning to the book *The Silence of Animals: On Progress and Other Modern Myths* by philosopher John Gray (2013), which in fact was the text that led me back to the work of Festinger on cognitive dissonance. Gray argues that the idea of incremental progress based on the observation that people will consistently change their beliefs in relation to facts that appear to be true, is itself a myth. He writes that although ‘[r]ational humanity shows no sign of ever arriving’, ‘humanists cling more fervently to the conviction that humankind will someday be redeemed from unreason’, interpreting the non-event as confirmation of their faith (Gray 2013: 80-81). This situation leads Gray (2013: 75) to assert that ‘[i]f there is anything unique about the human animal it is that it has the ability to grow knowledge at an accelerating rate while being chronically incapable of learning from experience’.

This is one troubling aspect of the observation that cognitive dissonance is often managed by holding on to cherished beliefs, even in the face of disconfirming evidence. But the illuminating aspect – the one that perhaps in fact offers us more freedom – is to take more fully on board that we are managing dissonance all the time in a dynamic world in which ‘truths’ are negotiated rather than found or fixed. We are bombarded continually, and with increasing intensity, by diametrically opposed narratives and messages regarding the world. Somehow we have to navigate a way through this complexity in order to remain sane (as captured in the cartoon in Fig. 1), by which I mean achieving enough psychological *consonance* between diverse elements of knowledge in order to be able to function and act in the world. Bringing awareness and reflexivity to the processes through which we all do this can perhaps assist with understanding sources and experiences of dissonance in the politics of sustainability, as well as offering different possibilities for acting in the world.

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<sup>4</sup> There are echoes here with Thomas Kuhn’s (1970[1962]: ix, 1) historical analysis of the ways in which scientific knowledge building, through the striving of individual scientists, tends towards the production of relatively stable constellations of ‘facts, theories, and methods’ that become normative and paradigmatic, but which are susceptible to revolutionary ‘shifts’ towards a different constellation when there are sustained ‘violations of expectation’. Kuhn’s work demonstrates the constructed and contingent nature of scientific objects in the ‘hardest’ of sciences, as well as the simultaneously conservative nature of much scientific practice (i.e. in working to sustain accepted paradigms), coupled with the tendency of scientific paradigms to also experience crises that encourage ‘paradigm shifts’.

Figure 1.



Source: <http://howtosavetheworld.ca/images/sipress-cognitive-dissonance.jpg>, accessed 11 February 2018.

In the next section I draw on the theory of cognitive dissonance to consider some ways in which the coherence of particular conservation and development discourses is managed through excluding, disavowing, and sometimes capitalising on, contradictory information. My concern is to highlight that the management of dissonance in these contexts is also ideological in nature, acting to bolster specific patterns of privilege and inequality that other perspectives might understand as detrimental for the flourishing of biocultural diversity.

### 3. On Dissonant Sustainabilities

#### *1. Managing disconfirming evidence*

My starting point here arises from a recent experience that in fact links Finland – where I gave the talk on which this paper is based – to an area in west Namibia in which I have conducted research since the early 1990s. The place is called Sorris Sorris and it is roughly marked by the blue asterisk on Figs. 2 and 3. Whilst in Namibia in October 2017, I attended a public lecture that concerned Sorris Sorris, given by the NGO the Namibian Nature Foundation (NNF), described as ‘Namibia’s leading conservation and sustainable development organisation’<sup>5</sup>. The talk, entitled ‘Hunting for opportunities: promoting business and employment for communal conservancies’ and presented at the Franco-Namibian Cultural Centre in Windhoek on 5 October 2017, focused on the establishment of a new model of commercial ‘non-trophy hunting’ – also framed as ‘conservation hunting’ –

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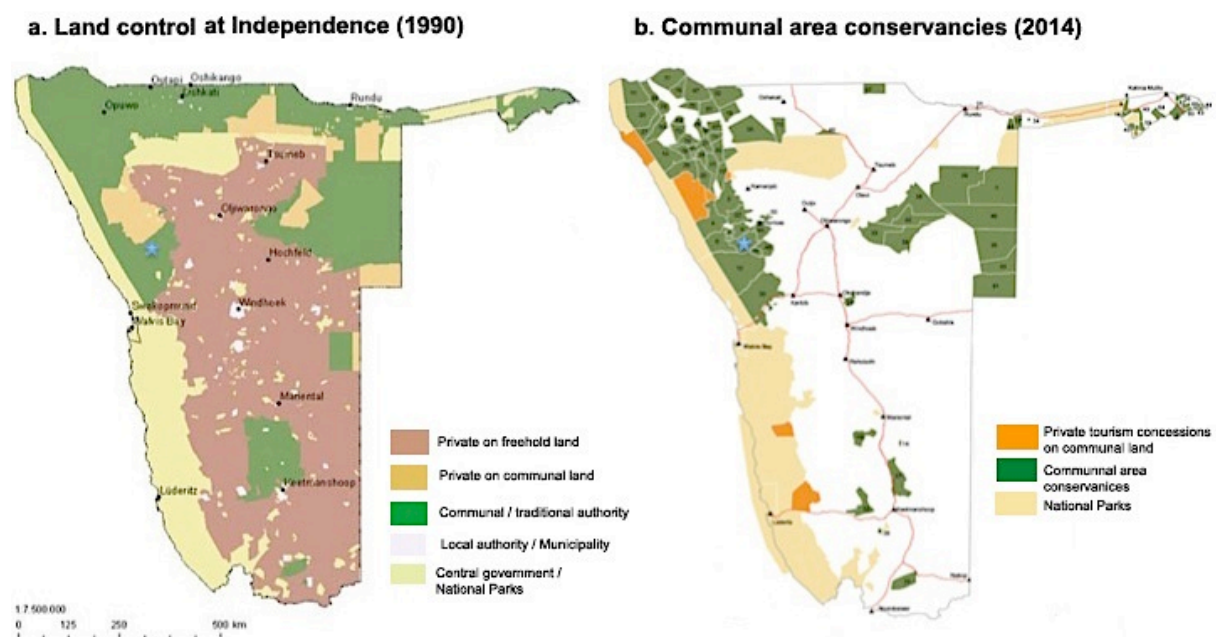
<sup>5</sup> See <http://www.nnf.org.na/>

Figure 2. Locating Sorris Sorris in west Namibia (marked by the blue asterisk).



Source: <https://www.futurepasts.net/west-namibia>, accessed 17 March 2018.

Figure 3. Pattern of land control in Namibia: a) showing areas under private and communal tenure (the flesh and green coloured areas respectively); b) showing the area now administered as communal area conservancies (in green). The blue asterisk indicates the location of the Sorris Sorris Conservancy.



Land allocation and tenure in Namibia. Source: ACACIA Project E1 2007 online [http://www.uni-koeln.de/sfb389/e1/download/atlas\\_namibia/pics/land\\_history/control-over-land.jpg](http://www.uni-koeln.de/sfb389/e1/download/atlas_namibia/pics/land_history/control-over-land.jpg); b) Registered communal area conservancies, state protected areas and tourism concession areas in Namibia, as of 2014. Source: NACSO, Windhoek, online <http://www.nacso.org.na/resources/conservancies-map-a3>.

supported by Finnish development aid through the Finnish Embassy's Fund for Local Cooperation<sup>6</sup>.

Namibia is well-known for its Community-Based Natural Resources Management programme – or CBNRM – which seeks to promote both conservation and development through opening landscapes and wildlife to new sources of entrepreneurial private investment in tourism and hunting. CBNRM has become established on top of the pattern of land control set up during Namibia's colonial and later apartheid history, as depicted in Figs. 3a and b. Most of the central and southern parts of the country were surveyed, fenced and settled by commercial white farmers once indigenous peoples – other than those that became labourers in commercial farming areas – had been constrained to more marginal areas (coloured green in Fig. 3a). It is these remaining *communally-managed areas* that have been the focus of CBNRM. The primary organisational outcome of CBNRM in Namibia has been the establishment of locally-run resource management organisations called conservancies – which again are coloured green in Fig. 3b. Conservancies are described in part as organisations established to enable business, the premise being that it is through business that both conservation and conservation-related development will arise. A recent report of the Namibian Association of CBNRM Support Organisations thus states that a conservancy is 'a business venture in communal land use... although its key function is actually to *enable* business'. Conservancies, therefore,

do not necessarily need to run any of the business ventures that use the resources themselves. In fact, these are often best controlled and carried out by private sector operators with the necessary know-how and market linkages' (NACSO 2014: 25, emphasis in original).

One of the key ways in which conservancies can enter into business arrangements with private sector investors is through agreements with commercial hunting operators (Naidoo *et al.* 2016). Indeed, hunting tourism is promoted as a primary means of generating income for conservancy management structures and members, through the payment of fees by professional private hunting operators. Naidoo *et al.* (2016: 628) assert, for example, that for detailed financial accounting data from 2011-2013 '... the main benefits from [trophy] hunting were income for conservancy management and food in the form of meat for the community at large'; calculating, through a 'replacement cost shadow price approach', the economic value of 'wild meat distributed from animals that were hunted' as equivalent to 'the price of buying alternative meat'. Using this perhaps questionable method of creating equivalence between different kinds of meat, Naidoo *et al.* (2016: 632) suggest that 'a substantial fraction [of the benefits from trophy hunting as commercial enterprises in communal area conservancies] went to the community at large in the form of meat from hunted animals', with approximately 1.4 million kg of meat equating to 32.0% of calculated economic benefits.

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<sup>6</sup> See <http://www.nnf.org.na/index.php/projects.html#hunting-for-opportunities-promoting-business-and-employment-for-communal-conservancies>

An emphasis on income generation through commercial trophy hunting, however, also makes Namibian CBNRM vulnerable to global concerns regarding the ethics of trophy hunting. Negative perceptions of trophy hunting in Africa have been heightened in the wake of the Cecil the Lion controversy in 2015 when, with a professional Zimbabwean hunting-operator, a wealthy American hunter in Zimbabwe killed an elderly research lion named ‘Cecil’. This event precipitated a veritable social media storm from which Namibian trophy hunting has not been immune<sup>7</sup>. In the October 2017 NNF talk, the time spent by the presenter on denouncing, rather than engaging, international public concerns regarding trophy hunting in Namibia was illustrative of how provocative this situation has been in relation to NGO and donor promotion of commercial trophy hunting to ensure income streams for Namibian communal area conservancies (pers. notes). Without taking ‘sides’ in this emotive debate, it is pertinent to note here that strategies of denouncement rather than dialogue (from both sides) are themselves ways of managing dissonance so as to sustain a particular perspective on the right route towards integrated conservation and development in this context.

Given the contexts outlined above, the value for conservancies of various forms of commercial hunting was a major theme in the October 2017 NNF talk I attended in Windhoek. The talk outlined how the NNF-Finnish ‘conservation hunting’ or ‘non-trophy hunting’ initiative seeks instead to diversify from trophy hunting *per se*, through raising the economic value of animal off-take quotas approved for a conservancy’s ‘own use’ and ‘shoot and sell’<sup>8</sup> (i.e. as opposed to trophies)<sup>9</sup>. The ways that Finnish funding has been used in Sorris Sorris to promote two types of commercial ‘non-trophy hunting’ through enhancing entrepreneurial hunting access to animals available for a conservancy’s own use and shoot and sell quotas<sup>10</sup> were thus described. The first of these commercial ‘non-trophy hunting’ packages is a professional hunting tour run by a commercial operator in Namibia called Estreux Safaris<sup>11</sup>. Like many land-based businesses in southern and central Namibia, this enterprise is itself a legacy of the historical appropriation of land in central Namibia (as shown in Fig. 3a) that has contributed to the poverty and constrained opportunities struggled with by many inhabitants of communal area conservancies. The second hunting package is described as a ‘premium hunting concept’ that would involve self-driving by experienced hunters sourced through the Finnish Hunting Association<sup>12</sup>. Finnish hunters are known for

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<sup>7</sup> See, for example, Reuters 2015. For a consideration of perceptions regarding the auctioning of permits to hunt endangered black rhino specifically in Namibia, see Hannis (2016).

<sup>8</sup> Wherein conservancies are able to trade animals in contracts to commercial butchers from outside the conservancy, with the approval of officers of the Ministry of Environment and Tourism (MET) (Bollig 2016).

<sup>9</sup> As Bollig (2016: 792-793) reviews, ‘[c]onservancies receive annual game quotas. These are set in annual meetings in which conservancy members, officers of the MET, NGO staff, and also trophy-hunting companies participate. About 20% of the quota is designated for trophy hunting, whereas 80% is kept for own-use hunting ... The latter category consists of animals assigned to traditional authorities to furnish meetings with meat, animals traded in shoot-and-sell contracts to butchers from the wider region, and animals exchanged with local agencies for their services’. Regarding trophy animals, ‘[t]rophy hunters, or more often their helpers, usually only cut off the “trophy part” of the animal that has been shot. The meat is left with the community for distribution’.

<sup>10</sup> See <http://www.nnf.org.na/project/hunting-for-opportunities-promoting-business-and-employment-for-communal-conservancies/15/32/71.html>

<sup>11</sup> See <http://www.estreuxsafaris.com/>

<sup>12</sup> See <https://metsastajaliitto.fi/>

appreciating a similarly extreme environment and for an emphasis on tracking and stalking on foot, and have visited Sorris Sorris in pilot hunts to explore ‘community conservation hunting’ in this conservancy. In this endeavour the meat not eaten by visiting commercial hunters would be distributed to the community, constituting a key method through which the community would benefit. As the speaker in the October NNF talk iterated, this meat distribution would respond to a circumstance locally in which ‘what is really important is meat’ – given a context where protein is at a premium and meat distribution is framed as ‘*the* link that people on the ground get from conservation’ (pers. notes).

A problem for me is that I have heard this sort of multiple-win narrative over and over again and experience it as radically dissonant with local narratives I also hear over and over again. These latter narratives often say instead, for example, that people only occasionally acquire meat through conservancy activities, and certainly not enough to constitute a significant component of household diets. Indeed, not long after the NNF talk I gave a lift to a young man who lives in the Sorris Sorris conservancy who explained that all the meat seems to stay with the conservancy leadership and is only really available at the time of the annual game count<sup>13</sup>. He had been a volunteer on the last two game counts in Sorris Sorris – facilitated by the Ministry of Environment and Tourism (MET) in March 2017, and January 2016. In these game counts this young man had laboured hard for several days, for which he had been paid in kind in the form of a feast of game meat when the count had been concluded (also see similar observations reported for this area in Silva and Mosimane 2012).

This may seem like an incidental encounter but it also leads to a significant point regarding how the economic value of indigenous fauna is created in communal-area conservancy contexts, as well as where this value goes. The ability of a conservancy organisation to sell a permit for a private operator to hunt an animal (whether allocated as part of quotas for own-use, shoot-and-sell, or trophy-hunting) is intricately linked with observations (i.e. ‘counts’) recorded in event books by conservancy employees and members, as a central part of conservancy management. Animals that qualify to be hunted as either trophies or non-trophies are thus ‘made’ through work by conservancy members to log observations. It is through this information that ‘surplus’ and/or ‘problem’ animals can be identified and potentially allocated as a part of the quota of ‘hunnable’ animals in a season (Bollig 2016; Hewitson 2017; Schnegg and Kiaka 2018). Professional hunting outfits pay a fee to conservancies for a permit to hunt animals allocated to these costs, a cost that is ultimately absorbed by their business through their charges to ‘tourist hunters’. So, another important measure here is the amount of profit made by professional hunters once their fees and other costs have been paid. How much is this income in comparison with the income to the conservancy once conservancy costs (i.e. payments to staff for event book work, game counts etc.) have been covered? Recent research by Lee Hewitson (2017) on the creation and flow of monetary values and payments in relation to elephant trophy hunting in Kwandu Conservancy, Zambezi Region, demonstrates the

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<sup>13</sup> Personal fieldnotes, 2017.



limited disbursement of value to those local people whose labour creates the value of animals that become identified as potential trophies; showing too how fees become significantly concentrated amongst members of the conservancy elite and as profit to commercial operators. In other words, while it may indeed be the case that the equivalence creating method deployed by Naidoo et al. (2016, reviewed above) calculates meat distribution as contributing 32% of economic benefits to conservancies, realities ‘on-the-ground’ indicate two further dimensions: 1) that meat from indigenous fauna in communal area conservancies is only inconsistently available to most conservancy inhabitants; and 2) that the high economic values being directed to entrepreneurial activities invested by non-conservancy members are themselves created through poorly paid labour contributed by conservancy members and employees (on this point see especially Hewitson 2017).

This same general pattern also seems to characterise conservancy-related income from other sources. Some people gain employment through conservancy-related commercial enterprises and this is clearly important locally. There is also some cash handout to conservancy members, but the amounts are mostly rather small and are not regular enough to be relied on as a significant part of household income. Some distribution of money from commercial tourism enterprises also goes towards conservancy running costs. What does seem certain, however, is that over the last 20 years of conservancy establishment in communal areas a series of successful tourism and hunting enterprises run at a profit by private enterprises has been created and supported, through increased foreign tourism access and land areas zoned for wildlife, both of which impact on local livelihoods and autonomy, in part through intensifying human-wildlife conflicts (also see Silva and Mosimane 2012; Sullivan 2016b; Schnegg and Kiaka 2018).

An additional layer in the divergences of value creation and disbursement traced above is connected with technological changes in the decades since CBNRM was initiated in west Namibia. These changes relate in particular to internet banking and the management of internationally sourced income from tourism and trophy-hunting. Unforeseen in the 1990s when Namibia’s CBNRM programme was being instigated and instituted, new communications technologies mean that payments to private operators of conservation enterprises can now be made from foreign bank accounts directly to other foreign bank accounts. This was clarified for me recently when I booked some accommodation in west Namibia in a lodge run under a private tourism concession through agreement with local communal area conservancies. The booking required a payment from my bank account in the UK into an account in the Gibraltar International Bank<sup>14</sup>. It thus appeared that this payment did not even enter Namibia, begging the question of how much of the income from private conservation enterprise in communal areas Namibia actually sees in any form.

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<sup>14</sup> Gibraltar is considered a tax haven – see Bullough 2017.

The sort of dissonance arising here between claims and observations regarding the distribution of conservation-related income and benefits and observations is often written about in development studies as the gap between ‘rhetoric and reality’ (see, for example, Hayter and Watson 1985; Park 1988; Okali 1994; Lind 2001; Mawere and Awuah-Nyamekye 2015). A key dimension, however, is also related to the active management of public narratives of success (Sullivan 2002: 179), undertaken in part to sustain access to funding sourced on the basis of the buoyancy of the conservation and development model being promoted. In the present case, the development model being pursued is an explicitly neoliberal one requiring both development and conservation success to arise through various combinations of marketisation, private investment and supportive state policy (Sullivan 2006). It is thus likely that evidence will be managed out of public discourse if it demonstrates that realities do not fully match public claims for wealth-sharing and distributed development-impact.

One way of managing success in such contexts is to delegitimise *disconfirming evidence*. Indeed, such delegitimation seems to be critical as a means of sustaining specific discourses and approaches favoured by powerful interests in the conservation and development nexus. I speak from some personal experience here in having been previously subjected to attempts to close down publication of disconfirming evidence, through personal and legal threats and various attempts to prevent publication of research (discussed in Sullivan 2003). When this happened to me in the late 1990s and early 2000s I was naively rather astonished. I had thought that sharing empirical research findings showing something different to the rhetoric I was hearing (for example, Sullivan 1995) would simply add to possibilities of incorporating this new information so as contribute to better outcomes. Over time, however, I came to realise that the sometimes ‘disobedient knowledge’ generated by social scientists and humanities scholars in relation to conservation contexts can become subject to various forms of rigorous management by organisations and funders in these circumstances – so much so that subsequently I joined with various researchers to share and problematise experiences of research suppression through a series of meetings<sup>15</sup> and reports (for example, Igoe and Sullivan 2009). These initiatives contributed to the establishment of an advocacy website for conservation justice called *Just Conservation*<sup>16</sup>, which continues to share observations and stories in which ‘grievances, concerns or experiences of conservation related human rights abuses’ can be shared. If at the time, however, I had also had recourse to the theory of cognitive dissonance – and particularly to an understanding of how people (including myself) might resist disconfirming information – I think I would have been better equipped to understand the vigour with which narratives regarding the context I was researching were being disciplined.

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<sup>15</sup> For example, a 2006 workshop on ‘Community-based conservation and protected areas in Africa: exertion of sanctions against “disobedient” knowledge producers’ co-organised with Hanne Svarstad and Tor Ave Benjaminsen at the then School of Development Studies, University of East Anglia; and a 2008 international three-day research workshop on ‘Problematizing neoliberal biodiversity conservation: displaced and disobedient knowledge’, co-organised with Jim Igoe and Katja Neves in Washington DC.

<sup>16</sup> See [www.justconservation.org](http://www.justconservation.org).



## ***2. Managing dissonance through disavowal***

My second example of ‘dissonant sustainabilities’ focuses on the deployment of so-called biodiversity offsetting (BDO) to claim an apparent ‘no net loss’ of ‘biodiversity’, even though a measurable loss of individuals of species populations and habitats through development has taken place. This is arguably a dissonant proposition that permits damage to be sustained rather than significantly eliminated, and that requires ‘us’ to believe that no loss of biodiversity in aggregate has occurred, even though a loss has in fact taken place. To illustrate this paradox, I will briefly consider two examples of how offsetting is being mobilised.

The image in Fig. 4a shows the Gamsberg zinc mine owned by the Indian company Vedanta Zinc International, which is listed on the London Stock Exchange (discussed further in Hannis and Sullivan 2018). The mine is located in the northern Cape Province of South Africa just south of the Orange River. The image below shows the recently completed access ramp, v-cut and the beginnings of a very large ‘waste rock pile’ built from the ‘overburden’ – i.e. the removed material forming the body of the mountain – excavated so as to be able to reach the ore below. The plateau behind will eventually be mined to depth, as shown in Fig. 4b.

The Gamsberg mountain sits within the Succulent Karoo Biome, designated as one of the world’s 36 ‘biodiversity hotspots’. The name Gamsberg may derive from ‘||gams’, meaning ‘water’ in the Khoe language of the Nama people who once lived there<sup>17</sup>. In the ravines of the mountain are two permanent springs, which are rare and important in this dry landscape. The pastures of the mountain plateau, described by a 19th century Cape government surveyor as ‘excellent’, were used by Nama in centuries past as part of a longstanding system of transhumance, alongside highly seasonal grazing on the surrounding arid plains. As the Cape frontier expanded, farmers of European descent displaced indigenous Nama pastoralists and Sān peoples and grazed their own cattle on the mountain (Moffat 2008[1858]).

Vedanta’s mine will essentially hollow out this spectacular inselberg, which they acknowledge to be ‘the core of the Critical Biodiversity Area determined in the Namakwa District Bioregional Plan’. Direct biodiversity impacts, however, are to be ‘offset’ through enhanced conservation of allegedly similar habitats nearby, although these areas will themselves not necessarily be protected from future mining (Vedanta Zinc International 2018).

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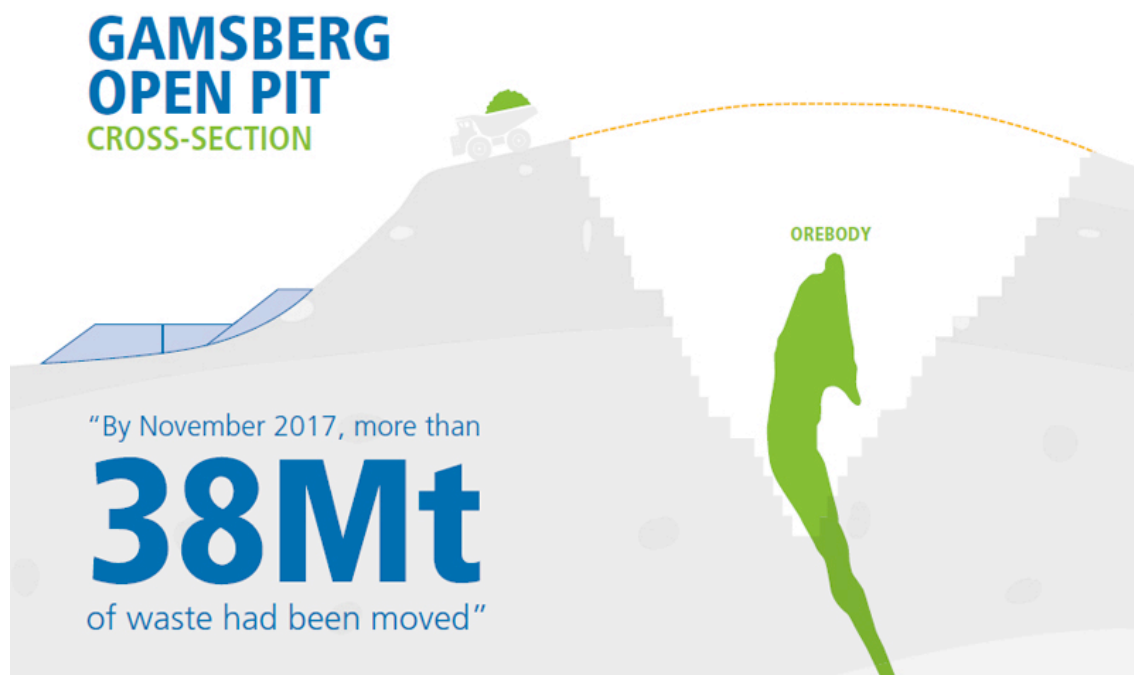
<sup>17</sup> Khoe presence in southwestern Africa, their encounters with Europeans and the dynamics of the colonial frontiers in the Cape of present-day South Africa and in the western areas of present-day Namibia are documented more fully in a timeline of historical references to southwestern Africa at <https://www.futurepasts.net/timeline-to-kunene-from-the-cape> and mapped online [here](#).

Figure 4a. Aerial view of Gamsberg in mid-2017, showing recently completed access ramp, v-cut and the beginnings of a very large ‘waste rock pile’. The plateau behind will eventually all be mined to depth, as shown in Fig. 4b.



Source: Moore 2017: online.

Figure 4b. Vedanta slide showing the depth plan for the Gamsberg zinc mine. Mt stands for million tons.



Source: Vedanta Zinc International 2018: online.

Biodiversity offsetting has also been a controversial element of conservation policy in England during the last few years (Sullivan and Hannis 2015). In this case, as elsewhere, a lot of attention has been placed on the application and development of a scoring device (Table 1) for calculating harms that will be caused and the offset units needed so as to mitigate or offset these harms. Research into application of this metric indicates, however, that far from creating certainty in either biodiversity calculations or conservation outcomes, what unfolds is a proliferation of emphasis on finding the right numbers to go into the metric, and then on negotiating these numbers so as to find the amount of conservation that a developer might be happy to pay for: as shown in the empirical cases documented in Carver and Sullivan (2017) – see Table 2 below – and in Sullivan (2013b) and Sullivan and Hannis (2017). Meanwhile, the application of the metric seems to make it more possible for developments that might not have been permissible under previous planning requirements, to now become permissible.

Table 1. Habitat scoring system for biodiversity offsetting in England.

		Biodiversity distinctiveness		
		Low (2)	Medium (4)	High (6)
Habitat condition	Good (3)	6	12	18
	Moderate (2)	4	8	12
	Poor (1)	2	4	6

Source: DEFRA, 2012: 7.

One way to understand how offsetting strategies manage the dissonance between environmental protection and impacts related to economic development is to see that offsetting offers the possibility of *consonance* by bringing in a new or third element that reconciles the dissonant elements. From this perspective a carbon or biodiversity offset permits dissonance to continue precisely by shifting attention to a new or third element, i.e. the offset. This situation is also resonant with the psychoanalytic concept of ‘disavowal’, as deployed recently by a number of authors considering how the dissonance created by environmental crisis is managed psychologically (Fletcher 2013; Weintrobe 2013). Freud’s original 1938 essay on ‘disavowal’ is helpful here (also see discussion in Sullivan 2017a). Entitled ‘Splitting of the Ego in the Process of Defence’, in this essay Freud asserts that in order to accommodate traumatic and dangerous reality the ego may behave in remarkable – he says *artful* – ways. In short, a defensive splitting can be effected such that the threat – or we might say the *dissonance* – associated with particular behaviours is both acknowledged and systematically turned away from. Attention becomes directed instead towards *fetishised solutions* that mask, and thereby permit, continuation of the dangerous but *satisfying* behaviour. Freud uses the term ‘disavowal’ to describe this simultaneous and symptomatic defence against, and displaced acknowledgement, of traumatic reality (Freud, 2009[1938]). Disavowal thus becomes embodied in the fetishised substitute – in this case the offset – on to which *value* has been displaced or transferred.

Table 2. Negotiated changes in calculated biodiversity baselines between Biodiversity Impact Assessments drafts 1 and 2, for an ethnographic case-study of a recently negotiated BDO contract in England.

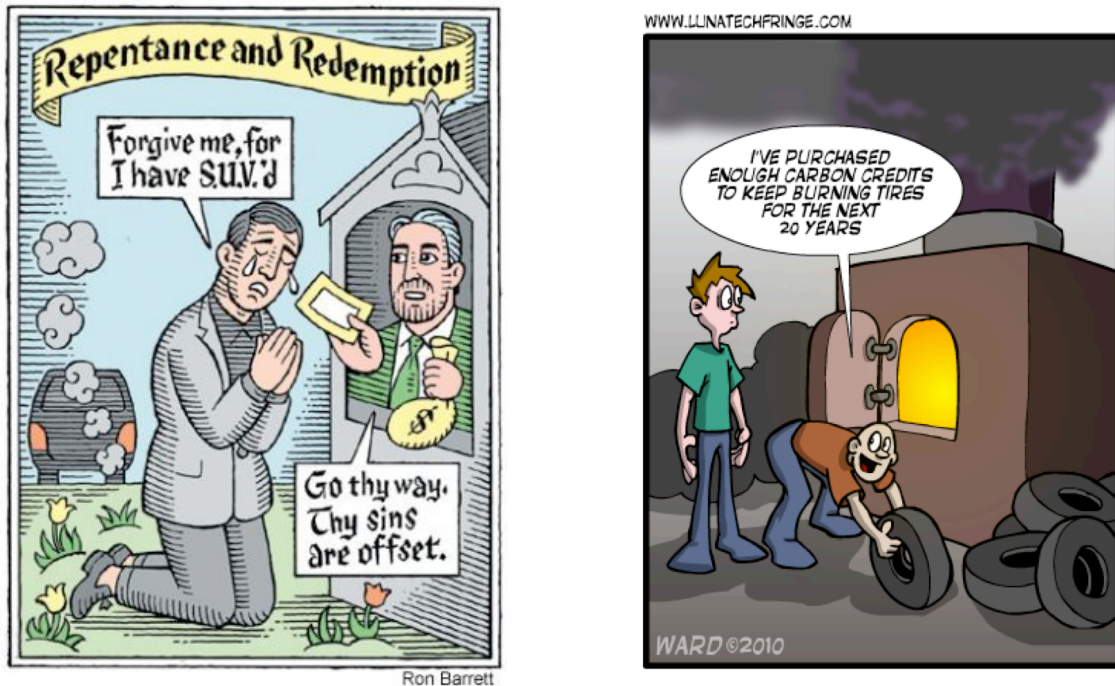
BIA Habitat area code	Habitat description	Area (ha)	Distinctiveness		Condition		Original unit value Draft 1	New unit value Draft 2	Percentage reduction in unit value
			Category change	Score change	Category change	Score change			
F1	Improved grassland	1.78	None	None	Moderate to poor	2 to 1	7.12	3.56	50%
P1	Wetland- standing water	0.01	None	None	Good to moderate	3 to 2	0.14	0.01	93%
F2	Improved grassland	3.10	None	None	Moderate to poor	2 to 1	12.40	6.20	50%
F2	Tall Ruderal	0.18	None	None	Moderate to poor	2 to 1	0.70	0.35	50%
The Bowling green	Amenity grassland	0.12	None	None	None	None	0.24	0.24	0%
F6	Amenity grassland	0.97	None	None	None	None	1.94	1.94	0%
West of football grid	Improved grassland	0.08	None	None	Good to moderate	3 to 2	0.48	0.32	33%
F3	Improved grassland	4.88	None	None	Moderate to poor	2 to 1	19.52	9.76	50%
Slurry pit	Standing water	0.01	High to low	6 to 2	None	None	0.05	0.02	60%
Part of F4 and F5	Improved grassland	1.52	None	None	Moderate to poor	2 to 1	6.08	3.04	50%
Total							48.68	25.52	48%

Source: Published in Carver and Sullivan 2017: 1063, drawing heavily on PhD field research by Carver.

This, I think, is in part what we see in offsetting as a strategy for solving environmental problems. Through offsetting, the proliferation of attention, activity and technical and legal methods for creating offsets and offset exchanges (as documented in detail in, for example, Lohmann 2009, 2014; Lippert 2014; Ehrenstein and Muniesa 2013; Asiyanbi 2017) seems at the same time to reduce engagement with the causes of degradation underscoring the apparent need for offsets. We might say that the offset, and its chimerical promise of ‘no net loss’, or even ‘net gain’, deriving from loss, has become the fetishised substitute for facing and reducing the cause of pathology – as, indeed, is pointed out in many cartoons of this strategy (see Figure 5). The defense of the collective capitalist ego (if its possible to speak of such a thing) is thereby sustained precisely through deepening the rift between acknowledged danger and the substitute ‘solutions’ that mask this danger. Of course, the depoliticisation and ‘rendering technical’ (after Murray Li 2007) of environmental degradation effected by calculative offsetting ‘solutions’ is a potent strategy for masking the exercise of capital/power, a dimension that provides insights into promotion and defense of these

‘solutions’ (as emphasised in Bracking *et al.* in press). Given the extent of environmental crisis today, and specifically the decline of species and habitats globally (IPBES 2018), offsetting strategies are also a defense *against* relational ecological realities that humanity surely can ill afford.

Figure 5. A couple of the many cartoons capturing the dissonance at the heart of offsetting as a sustainability solution.



### 3. Capitalising dissonance

For my third illustration, I will briefly consider a set of green economy conservation and development proposals that seem to luxuriate in the propagation of dissonance. This is the putative promotion of environmental conservation measures through blockchain technology and cryptocurrencies, as I have discussed recently in an Entitle Political Ecology Blog (see Sullivan 2018).

Consumers are currently being solicited to invest in what is being framed as a US\$120 trillion natural capital market whose value will be unlocked and sustained as blockchain technologies and cryptocurrencies transform the distribution and trading of ‘certified natural assets’. This, at least, is the promise of the Natural Asset Exchange (NAE)<sup>18</sup>, an emerging online trading platform established by Mauritius-based company impactChoice<sup>19</sup> and offering efficient, transparent and democratic connections between producers, buyers and consumers of so-called natural capital assets<sup>20</sup>. The Natural Asset Exchange (NAE) capitalises on blockchain

<sup>18</sup> Hosted at <https://earthtoken.com>

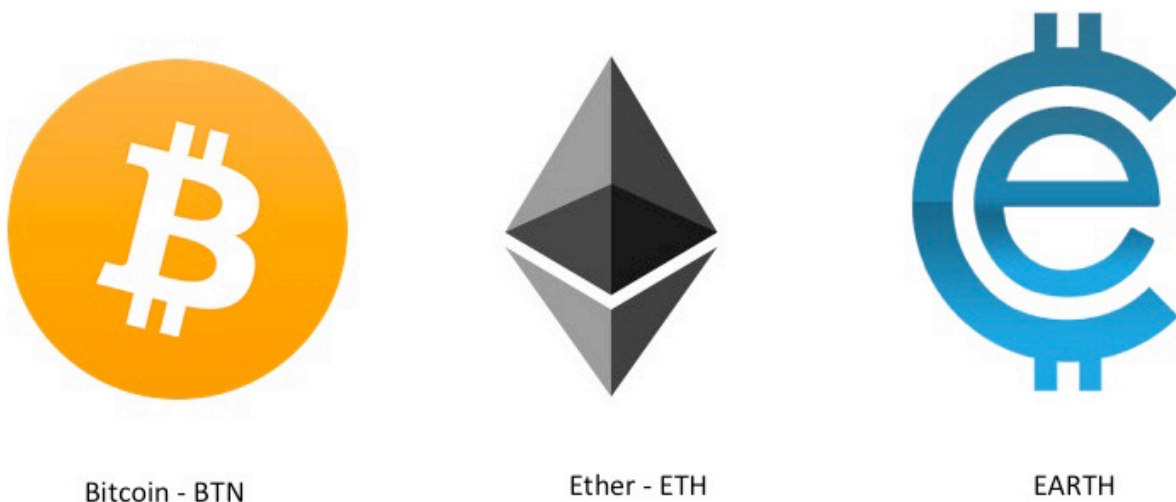
<sup>19</sup> See <http://impactchoice.com>

<sup>20</sup> See Sullivan 2016b and 2017b for a fuller discussion of the creation of conserved and/or restored nature as a ‘natural capital’ ‘asset class’.



technology and the ‘digital gold’ of cryptocurrencies to change the world through the enhanced interactivity of Web 3.0. As with other market-based approaches to the distribution and management of environmental health and harm, the claim is that certified producers of natural assets – those organisations creating positive and tradable environmental impacts – will be efficiently and securely connected with consumers of these assets, via ‘EARTH tokens’ whose value will be determined by the market in which they are traded. Shorthanded simply to EARTH, these tokens can be purchased with two other cryptocurrencies, namely Bitcoin or ‘Ether’, the currency associated with the ethereum blockchain platform.

Figure 6. Cryptocurrency tokens for Bitcoin (BTN), Ether (ETH) and ‘EARTH’.



The technology behind the NAE is a combination of the distributed and minable ledger of a blockchain platform and the decentralised storage, ownership and movement of value through cryptocurrencies – encrypted digital assets that can be traded anonymously on the internet. Blockchains are numerical matrices stored and synchronised in multiple nodes in the computers of participating users. Like a synced google document with multiple editors, the blockchain makes it possible for transactions to be distributed and agreed across the web of nodes in the chain; as well as for value to potentially be ‘mined’ and accumulated through adding transaction records to the shared blockchain ledger (Goldsmith 2017).

Cryptocurrencies permit the creation and transfer of digital assets that are verified and protected through encryption. The NAE makes use of the Ethereum blockchain to provide both ‘an open-source, public, blockchain-based distributed computing platform featuring smart contract functionality’<sup>21</sup>, and a cryptocurrency token (i.e. ‘ether’) that can be used to purchase, and thus give value to, EARTH tokens. In a process that to the uninitiated seems something like alchemy, the combination of blockchain technology and cryptocurrencies enables value to be ‘mined’ and accumulated, through verifying complex transactions

<sup>21</sup> See <https://en.wikipedia.org/wiki/Ethereum>.

calculated on the shared blockchain ledger. Cryptocurrency mining is receiving a lot of attention at the moment due to the spectacular growth in value, as well as volatility, of bitcoin in the last few months<sup>22</sup>.

Echoing familiar ‘limits to growth’ concerns (Meadows *et al.* 1972; Meadows and Randers 2004), the particular genius (or perhaps audacity) of the Natural Asset Exchange is to recognise that allocated EARTH tokens should appreciate in value due to the fixed supply of natural assets conferred by planetary limits (Steffen *et al.* 2015). This scarcity ‘in turn should lead to an increase in the market capitilisation [*sic*] of EARTH’, coupled with the flexibility to plug in future natural asset products not yet accounted as such (Lagrange 2017). A range of new natural capital asset classes are to be created, financed and traded via the NAE. These include black rhino conservation via the Black Rhino Reserve Trust fundraising site established by the owners of private lodges in Pilanesberg National Park in South Africa<sup>23</sup>, as well as voluntary carbon offset purchases<sup>24</sup> from the Kariba REDD+ project in Zimbabwe<sup>25</sup>, validated and brokered through a Guernsey-registered company called Carbon Green Investment<sup>26</sup> (discussed further in Lang 2018).

EARTH tokens are not alone in the new world of conservation-by-cryptocurrency. In fact, the NAE is just one of several platforms creating cryptocurrencies now linked with some putative and tradable natural capital value. Similar multiple-win promises are, for example, being made for the trade of Earth Dollars<sup>27</sup>, also powered by the Ethereum blockchain platform. The Earth Dollar is claimed to be backed by pledged natural capital assets identified in this context as ‘fresh water, trees, fruit trees, carbon credits, mineral rights, artwork, real estate...etc’<sup>28</sup>. It is also claimed that value verification will be based on accounting methodologies such as those promoted by the UN and EU programme on The Economics of Ecosystems and Biodiversity (or TEEB)<sup>29</sup> as well as by the Wealth Accounting and Valuation of Ecosystem Services (WAVES) system promoted by the World Bank<sup>30</sup>. These natural capital accounting initiatives are thus being mobilised in interesting and perhaps unintended ways to legitimate cryptocurrency natural capital financing strategies.

At the heart of the promotion of such natural capital-backed currencies are claims made for the revolutionary distributed valuation of ‘natural assets’ via blockchain technology and cryptocurrencies. These claims are based in particular on the distributed holding of the blockchain by multiple participating and autonomous ‘nodes’. At the same time, however, these claims are dissonant in relation to the barriers (or perhaps ‘gateways’) controlling who

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<sup>22</sup> See <https://www.buybitcoinworldwide.com/volatility-index/>

<sup>23</sup> See <https://medium.com/earthtokens/partner-announcement-black-rhino-reserve-wildlife-trust-23e53fa48f73>.

<sup>24</sup> See <https://medium.com/earthtokens/kariba-redd-project-joins-earth-token-project-bbee24b072bd>.

<sup>25</sup> See <http://www.coderedd.org/redd-project-devs/carbon-green-investments-kariba-zimbabwe/>.

<sup>26</sup> This company manages tradable carbon credits through REDD+-accounted forest projects in Africa, see <http://www.carbongreenafrica.net/>

<sup>27</sup> See <http://www.earthdollar.org/>

<sup>28</sup> See <http://www.motherearth.network/>

<sup>29</sup> See <http://www.teebweb.org/>

<sup>30</sup> See <http://www.worldbank.org/en/topic/environment/brief/environmental-economics-natural-capital-accounting>

is able to access and/or become a node in the chain. These barriers relate to both technology/expertise and capital.

For example, the purchase of cryptocurrencies requires access to a computer, an email address, a mobile phone (to which text-messages containing verification codes can be sent), a photo ID, and, of course, money for buying cryptocurrencies that in turn can be directed towards the purchase of a natural asset-backed cryptocurrency. For the purchase of the NAE's EARTH Tokens specifically, access to either Bitcoin (BTN) or Ethereum's currency Ether (ETH) is required. Acquiring Ether is not as simple as a Paypal or Debit/Credit card transaction. It requires purchasing via an online currency exchange like Coinbase, for which a photo ID confirmed user account has been set-up and verified through a number sent to an account-linked mobile phone.

In terms of financial access to EARTH token purchase/investment, the lowest amount that can currently be invested in the Natural Asset Exchange's EARTH tokens is one Ether, which in January 2018 could be bought for around US \$1,250 (up from \$750 only two weeks previously). In return, a purchaser receives 4,800 of a capped pre-sale of 1 billion earth tokens. In order to make this purchase/investment a cryptocurrency wallet is needed, such as an Ethereum address to which purchased Earth tokens will be sent. One way of acquiring an Ethereum address is to become a 'node' in the Ethereum blockchain. This in turn may involve downloading the full blockchain – currently around 70GB of several million 'blocks' (depending on installation) – and permitting the node to sync regularly with the full distributed peer-to-peer blockchain. Significant bandwidth and hardware capacity are thus required, as well as a smattering of technical know-how, or at least an inclination to engage with digital-numerical instructions and techno-aesthetics. For many inhabitants of rural and/or 'under-developed' contexts in the global south, i.e. the primary locations for 'natural capital assets' such as carbon stored in tropical forests, the lingering digital divide means that equal participation in such a global exchange is a pipedream.

Nonetheless, on 18 January 2018, when I last looked in detail, some 85,459,628 EARTH tokens had been allocated, i.e. purchased. At that time, one ether – equivalent to 4800 EARTH tokens – was buying and selling for around \$1050, meaning that current EARTH token purchases were worth almost \$19 million. This is a figure that had risen by around \$5 million in the previous three weeks through the rise in value of ether alone. Although a far cry from the US\$120 trillion claimed above for the 'natural capital market', this is still a dramatic creation and capture of 'value', particularly since the tokens being bought, sold and accumulated are themselves fictitious commodities that, as the Terms and Conditions of impactChoice make clear, may become useless and/or value-less due to technical, commercial, regulatory or any other reason. Even so, and regardless of outcomes, for development of the NAE impactChoice claims a flat fee of 50% of any funds transferred to purchase EARTH tokens.



These proposals link environmental sustainability via so-called natural capital asset management with a parallel world of currency creation and exchange that is opaque and inaccessible to many. Their claims for the positive environmental impacts they will generate also have something of a hollow ring when the energy usage of sustaining and synchronising multiple blockchain nodes is considered. For example, the massive computer technology behind Bitcoin has been calculated to use as much energy as Bulgaria, an industrialised country with a human population of around 7 million (Hazas *et al.* 2017).

Creating and accumulating cryptocurrency bubbles of value through appealing to the value of conserved nature framed as natural capital is clearly consistent with speculative tendencies in an era of financialised neoliberalism (Konings 2018). But it does seem spectacularly *dissonant* with more conventional notions of environmental protection and the equitable distribution of value. Nonetheless, and judging by posts on facebook and twitter, support for impactChoice and EARTH tokens proliferated in early 2018. In this case, then, sustainability proposes that seem to have demonstrable dissonance at their core are being amplified and intensified through their public and popular uptake.

#### 4. Some thoughts, by way of a conclusion

Overall, I have been asking what the implications are for us as political ecologists, ‘critical social scientists’ and environmental humanities scholars if we take dissonance and its (ideological) management to be at the heart of approaches to sustainability? In particular, will seeing dissonance as central to sustainability discourse assist with understanding both the antagonisms with which sustainability discourse is infused, and the frequent refusal of well-intentioned analyses aiming to improve circumstances for both ‘the environment’ and ‘the disadvantaged’?

Following social psychologists such as Leon Festinger I have reflected on the implications of understanding that cognitive dissonance is a normal and everyday *motivating force* shaping peoples’ behaviours. I have suggested that this understanding might assist with being self-aware about the behaviours and rationalisations one engages in so as to manage dissonance; as well as with understanding that aspects of other peoples’ strategies and behaviours, particularly those that might seem strange, are also perhaps associated with the management of dissonance. I have suggested further that the management of dissonance has an ideological component – i.e. if I believe that markets will solve market failures, then I am likely to propose and defend market-oriented solutions to allocation failures in societal and ecological arenas, even if there may be a weight of alternative evidence demonstrating that these solutions do not necessarily address the problems they are designed to address<sup>31</sup>. Indeed, I am likely to go further in actively suppressing or denying disconfirming evidence, sometimes cynically so. The same observation, of course, might also apply in reverse, and it is probable

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<sup>31</sup> On ideology and proposed solutions to environmental crises, see Sullivan 2017c.

that blindspots are always present in our research through our own needs to manage dissonance.

Being aware that the management of cognitive dissonance drives behaviours, however, might not necessarily help if what is being sought is some kind of fixed and undeniable truth about the world. As mentioned earlier, one of the more troubling aspects of the above discussion is a realisation that scientific enquiry and rational modes of empirical analysis will not necessarily lead to better outcomes. In fact, they may lead to worse outcomes, in part through the psychological and ideological work people do to suppress disconfirming evidence – as we see in spades today, for example, through the ideological management of climate change science in the US (for example, Cook 2018), and the suppression of Brexit economic impact reports in the UK (for example, Stone 2017).

What we are left with, then, are dilemmas of the recurring ethical and moral kind (cf. Gray 2013: 75), amidst a heightened understanding of how human beings ‘struggle to change harmful habits, repetitive actions, or unhealthy preferences (path dependencies) even when they clearly recognize the negative consequences of inaction’ (Holm et al. 2015). I am referring here to the ‘Humanities for the Environment Manifesto’ by Poul Holm and colleagues, which suggests that the current ‘unprecedented crisis of how we as a species will cope with the consequences, not to mention responsibilities, of being the major driver of planetary change’ (p. 983) ‘might indeed be the biggest *cognitive* challenge to human intelligence in history’ (emphasis added). As they assert, it is crucial ‘to promote pro-environmental behavior’, but in ‘order to accomplish this, we need to move beyond rational choice and behavioral decision theories, which do not capture the full range of commitments, assumptions, imaginaries, and belief systems that drive those preferences and actions’. They therefore argue for a mobilisation for environmental concerns of ‘Humanities disciplines, such as philosophy, history, religious studies, gender studies, language and literary studies, psychology, and pedagogics [and I would also add anthropology] [that] *do* offer *deep* insights into human motivations, values, and choices’ (Holm *et al.* 2015: 978, emphasis added).

The reflections I have offered here are intended as a contribution in this direction. In particular, becoming wiser – and perhaps more forgiving – about how we manage the drive to reduce cognitive dissonance seems essential for the civic, dialogic and governance choices urgently now required by the planetary ecological and societal challenges that, collectively, we face.

## Acknowledgements

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