The conservation ‘myths’ we live by: reimagining human-nature relationships within the Scottish marine policy context

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Abstract

There are growing calls for the articulation and consideration of different value systems and emotions in shaping conservation and natural resource management decisions and participatory resource governance. This requires recognition of the socio-cultural relations attached to landscape and seascape in marine conservation policy. Taking into account the relationship between the socio-natural environment and socio-political institutions and processes complicates conservation. Making human values and assumptions explicit within the conservation discourse reveals the inadequacy of conservation that is focused on a biodiversity that is framed only as other-than-human nature. This paper considers how the perceived separation between nature and culture underpinning conservation policy and practice exacerbated a conflict between members of a small Scottish island community and the Scottish Government around the creation of a marine protected area (MPA) off the coast of the island. A rich maritime heritage and a distinctive way of knowing the sea suggested the presence of embedded values that appeared to be colliding with values driving the MPA designation process. Social, historical and cultural forces have shaped the perceptions of landscape and seascape of many of the islanders and can help to explain the local resistance to the MPA. Visual participatory methods were used to explore local understandings of the meaning of conservation. The case-study offers insights into different ways in which marine spaces are conceptualised and how this relates to marine resource governance. It contributes to a more complete understanding of human relations with the marine environment in the context of a marine conservation conflict.

Keywords: marine policy, bio-cultural diversity, conservation conflict, marine protected area, visual participatory methods, human values

Introduction

Recent years have witnessed several paradigm shifts in social and natural science in the fields of conservation and development and in natural resource and environmental management (Dove, Sajise and Doolittle, 2011; Berkes 2015). In the conservation and development literature, the importance of taking into account the wider socio-ecological and political context in order to understand local environmental relations is now widely accepted (post-localism); systems thinking in ecology challenges former assumptions of steady state and equilibrium in nature and highlights flux, uncertainty and surprises both in nature and in society-environment relations (post-equilibrium); the concepts of nature and culture, and the perceived separation between them, are increasingly questioned (post-structural/post-modern/post-natural); and Western concepts of conservation and development are challenged (post-Western) (Castree 2005; Dove, Sajise and Doolittle 2011). In the context of natural resource and environmental management, ecology has seen a shift from reductionism to a systems view (supporting integrated conceptualisations of complex human-environment systems). Participatory management is becoming the norm and the role of technical expertise is being redefined through the recognition of local stakeholders as experts. There has been a paradigm change in commons theory from Hardin's (1968) 'tragedy of the commons' assumptions that resource degradation necessarily ensues from common-pool resource use to the commons theory of Ostrom (1990), which recognises the ability of an identifiable community of resource users in a common property regime to self-organise and self-regulate (Berkes 2015). Attention is increasingly being drawn to the social construction and political contestation of spatial dimensions to the commons (place, territory, scale) and how this shapes management approaches (see Moss 2014).

However, conservation policy and practice still tends to treat humans and nature as essentially separate by assuming that other-than-human nature can be defined separately from human culture (Brechin *et al.* 2002; Peterson *et al.* 2010). This dualistic worldview shapes conservation and environmental management legislation, policy processes and mainstream debates, reinforcing a Cartesian divide between nature and culture. Acknowledging that different conceptualisations exist which do not assume a separation between humans and nature encourages critical thinking about how the framing of nature as other-than-human shapes research agendas (Castree 2005; Ingold 2000; Nightingale 2014). It may also open up different possibilities in environmental management through, for example, encouraging power-sharing arrangements between policy-makers and local communities in relation to the management of natural resources. This paper focuses on how the perceived separation between nature and culture in a particular conservation framework (the European Habitats Directive (92/43/EEC))¹ contributed to conflict in the implementation of a Scottish marine protected area through a failure to recognise the socio-cultural relations attached to landscape and seascape.

Biocultural diversity

It is recognised that understanding and adapting to a local cultural context is important for conservation success (Brechin *et al.* 2002; Peterson *et al.* 2010; Waylen *et al.* 2010) and that biological diversity is linked to cultural diversity (e.g. Kelbessa 2015; Maffi 2007; Pretty *et al.* 2009; UNEP 2007). During the 1990s, anthropologist Luisa Maffi developed the concept of 'biocultural diversity', which views human knowledge, language and practices as intertwined with nature. Pretty *et al.* (2009, 102) identified four bridges linking biological and cultural diversity and important to cultural continuity: '*beliefs and worldviews, livelihoods and practices, knowledge bases and languages, and norms and institutions*'. Despite calls for more

¹ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:01992L0043-20070101&from=EN>

integrative conservation policies based on the acknowledgement of common drivers of biological and cultural diversity (see Pretty *et al.* 2009), the conservation policy environment still largely reflects an assumed separation between nature and culture (Peterson *et al.* 2010). This becomes problematic when the conservation policy framework proceeds on the unquestioned assumption that clear boundaries can be drawn between social and natural systems. The embeddedness of such an assumption risks elevating such separation to the status of unquestioned fact or the whole ‘truth’. It undermines the power of different perspectives or ‘ways of knowing’ to encourage critical thinking where they do not accord with the unquestioned assumption, which is based on unarticulated values and worldviews.

Value struggles and universalising tendencies

Considering the relationship between the socio-natural environment and socio-political institutions and processes complicates conservation (see Dove, Sajise and Doolittle 2011). Environmental problems are framed and understood through values and culture (Schultz *et al.* 2005). Making such values and assumptions explicit within the conservation discourse reveals the inadequacy of conservation that is focused on a biodiversity that is framed only as other-than-human nature.

Thinking more deeply about the implications of promoting a narrow environmental agenda opens up questions about the assumption that biodiversity must be conserved and that society must act to enable such conservation to take place. The need to preserve biodiversity can be described as a universalising concept. Conservation thinking is dominated by the assumption that the protection of biodiversity is ‘good’. Yet, what is ‘good’ is a matter of societal choice. The extent to which ecological outcomes, such as the conservation or depletion of resources (including biodiversity), constitute a problem depends on subjective value judgements and socio-cultural processes (Cote and Nightingale 2011; Mee *et al.* 2008). The unquestioned assumption that biodiversity conservation is ‘good’ means that environmental managers and policy-makers are focused on how to resolve or address conflicts with a view to achieving a conservation goal, resulting in a polarised framing of conflicts into conservation vs. development camps. The reality is far messier. Challenging the assumption that biodiversity conservation is ‘good’ provides space for raising questions of social equity – which conservation outcomes are ‘good’, for whom are they desirable and what voices or perspectives might they marginalise? Asking these questions requires scientists and policy-makers to acknowledge the subjectivities inherent in competing value systems. It challenges both natural and social scientists to be more reflexive by developing an awareness of the underlying assumptions or ‘myths’ (Gunderson and Holling 2002; Midgley 2004) shaping their epistemologies and ontologies. This offers the potential for new approaches to conservation to surface that reflect a plurality of values, rather than a stand-off between ecocentric and anthropocentric values. The articulation of different value systems reveals how social-ecological networks can be represented (and constructed) in different ways.

Recent research suggests that there is increasing recognition that marine spaces are socially produced (Levine, Richmond and Lopez Carr 2015; Rossiter *et al.* 2015). Maps can produce reality as much as represent it through the choices made about what is, and is not, represented on a map (Crampton 2001; Smith and Brennan 2012). Mapping is an inherent (and explicitly powerful) part of the designation of a marine protected area (MPA), a ‘*geographically defined area, which is designated or regulated and managed to achieve specific conservation objectives*’ (CBD 1992, Article II). It is increasingly evident that social, economic and political factors influence the implementation and acceptability of MPAs and, as such, are key to MPA success (Grantham *et al.* 2013; Rossiter and Levine 2014). A better understanding of the socio-

cultural relations attached to the marine and coastal environment is an essential precursor to the implementation of MPAs (Brennan, Mee and Potts 2011; Levine and Feinholz 2015; Rossiter *et al.* 2015). This is illustrated by a conflict between members of a small Scottish island community and the Scottish Government around the creation of an MPA north of the island archipelago of Barra, perched at the periphery of the Outer Hebrides (the most westerly inhabited islands in Scotland) and 76 nautical miles off the north-west coast of Scotland.

The case study

Barra is linguistically different to mainland Scotland, religiously distinct from much of the rest of the Hebrides and bears the psychological legacy of nineteenth century Highland Clearances (mass evictions of local populations to make way for sheep-farms and hunting-estates). In 2000, the Scottish Government's nature conservation body, Scottish Natural Heritage (SNH), proposed the designation of a marine Special Area of Conservation (mSAC), a type of MPA, in the Sound of Barra (Figure 1) in order to fulfil UK obligations under the Habitats Directive. Key members of the local community fiercely resisted the proposal (and eventual designation in 2013) of the mSAC, ostensibly due to fears that it would impose limitations on development, planning and change of the designated (and surrounding) areas and could impede existing uses (such as fishing).

The Habitats Directive required the establishment of a Natura 2000 network of marine protected areas as part of an ecologically coherent network of special areas of conservation. Site selection had to be based on scientific criteria and best expert judgement (McLeod *et al.* 2005; European Commission DGXI 1995). Social and economic criteria cannot be taken into account when selecting and designating sites.² While social and economic considerations can inform the development of a management plan for a site, very few mSACs have one as there is no obligation to create one. The process of site selection and designation of SACs under the Habitats Directive effectively isolates the natural dimension of ecosystem conservation from the human dimension. This framing of conservation collided with a distinctive way of knowing and sense of belonging on Barra, shaped by social, historical and cultural forces.

² See, for example, Case C-355/90 Commission v Spain [1993] ECR I-4221; Case C-67/99 Commission v Ireland. ECR I-5793 and Case C-71/99 Commission v Germany ECR I-5814.

Figure 1 The Barra archipelago showing the Sound of Barra. Map courtesy of Tim O'Higgins (*Cartography an tUiginneach*)

Methods

An emergent mixed method approach to data collection and analysis was used to explore the dispute, involving participant observation, in-depth interviews, and visual participatory methods. The latter involved participant photography to explore local understandings of the meaning of the emotionally charged concept ‘conservation’, together with two related art-science collaborations which articulated a version of the intangible cultural heritage (see Lenzerini 2011) in Barra’s marine environment (see Brennan [under review]; Hurrell and Brennan 2013; MacKinnon and Brennan 2012). A total of 61 respondents were engaged with (49 local and 12 non-local), 59 informal conversations were documented about the mSAC conflict and life on Barra generally and 27 interviews (16 unstructured and 11 semi-structured) were carried out. The 11 semi-structured interviews involved visual methods which built on 16 unstructured interviews from an earlier phase of the fieldwork and provided a deeper understanding of the dispute by revealing more about the relationships between people and place on Barra. A thematic analysis approach was used to analyse the data. Interview transcripts, images and fieldnote observations were coded, sorted and categorised (Bryman 2008) using NVivo 10 qualitative data analysis software.

Discussion

The long shadow of a victim-oppressor mentality

Social, historical and cultural forces have shaped the perceptions of many of the islanders living on Barra today and can help to explain the local resistance to the mSAC. Historical events can be interpreted to have repeatedly cast the people of Barra in the role of victim. This victim-oppressor mentality/pattern has carried through to present day Barra and influences local perceptions of outsider involvement in local life. The case study provides insights into how the articulation and acknowledgement of emotional, social and cultural meanings and values can contribute to a more complete understanding of human-environment relations in the context of a marine conservation conflict.

It is possible that the roles of victim and oppressor were seeded as a pervasive narrative in a collective Hebridean worldview as early as the 9th century as a result of Viking invasions. The Hebrides (inner and outer) were long known as *Innse-Gall* (the islands of the foreigners) and Norse influence in this region spanned some 500 years (Stahl 2000). It was, however, the Highland Clearances of the nineteenth century that unequivocally equated Highlanders with the role of victim in a collective Scottish worldview (Ascherson 2003). During the Clearances, the landlords, often absentee, replaced the people living and working on their lands with more lucrative sheep farms and deer-hunting parks. This resulted in a decrease of the population of Barra from 2363 to 1873 (approximately 21%) between the censuses of 1841 and 1851 (Campbell 1998).

A victim-oppressor pattern has carried through from the past to present day Barra. It is most visible in the casting of outsiders, in particular Scottish Natural Heritage (SNH), in the role of oppressor, which goes hand-in-hand with the role of victim. Several participants described SNH in language which conveyed a sense of powerlessness at the hands of an oppressive and domineering force:

“it seems like they look after everything except the people that are in the place, which is the culture and it’s destroying the culture if you take these people out and it makes it more difficult for people to stay there, you change everything really.”³

³ RP-2.3 Excerpt from interview 20.10.11

Different perceptions of the meaning of 'conservation'

Research data revealed that a common local perception of SNH's understanding of conservation was one of 'hands off!' and 'keep out!', a reflection of the separation of humans and nature by the mSAC designation process. The sense of SNH as an oppressive force, which is committed to preserving and conserving the natural environment by minimising or preventing human interactions with this environment, is reinforced by the kind of conservation they are perceived as trying to achieve.

*"SNH and the islanders have completely different ideas of what conservation is. SNH's idea of conservation is that they don't want animals grazing the ground, don't fish, don't walk on the shore in case you disturb the habitat, don't reclaim anything. Recycling has always been there in the islands – you take the stone from an old house and use it! SNH don't want you to do this."*⁴

Dynamism was at the heart of the local understanding of the meaning of conservation (a sense of 'live with' and 'use/develop wisely') in contrast to the perceived stasis of conservation areas:

*"Barra's not a museum piece, it's an island you live on."*⁵

*"It is a working environment and totally at odds with what our governments are trying to create, a preserved environment. Conserved environment."*⁶

The mSAC designation process helped to perpetuate the victim-oppressor dynamic by only allowing the scientific case (and not social and economic considerations) to be taken into account. This had the unfortunate consequence of framing humans as victims of the interests of natural environment, which is protected by a regulatory process.

A sense of 'placing'

The sense of imposition of natural interests over human interests makes conservation goals difficult to achieve by ostracising the humans who interact with the relevant environment. On Barra, this was exacerbated by the importance of genealogy on the island and the richness of the Gaelic language spoken by more than 60% of Barra's population. The importance of knowing who you belong to is reflected in the Gaelic tradition of a '*sloinne*' which is a name or names (usually paternal, indicating your father, grandfather etc.) by which people know you. This 'placing' through genealogy complements the sense of connection with place in the Gaelic tradition, where naming and stories associated with features on land and sea continue through to the present day. Evidence of past and present naming in relation to the seas around Barra illustrates the depth of local people's connections to their marine environment (see Brennan [under review]; Hurrell and Brennan 2013; MacKinnon and Brennan 2012). Gaelic scholar John MacInnes has observed the importance of this connection in Gaelic culture generally:

'Traditional Gaelic culture in Scotland presents us with a strong sense of territory in which place names are charged with historical and legendary associations in a timeless order in which geography and history are merged' (MacInnes 2006, 444).

It could be considered that the policy environment does not 'belong' to the local environment. It is from another 'world', but it enters the local environment to set limits on it. When

⁴ RP-2.7 Excerpt from interview 21.09.11

⁵ RP-2.8 Excerpt from interview 6.4.12.

⁶ RP-2.4 Excerpt from interview 10.4.12.

discussions focus on logic alone, this can be alienating as logic cannot necessarily articulate or recognise the embodied experiences of what is being discussed. Perhaps the mSAC conflict was not so much about a sense of place as about a sense of ‘placing’ that has been upset by the policy environment. Working this out may involve finding a way to ‘place’ the policy environment within the local environment as currently ‘seen’ by the local people, in a way which has a recognised social function within that environment.

‘Place’ has been defined as having three features: geographic location, material form and investment with meaning and value (Gieryn 2000; Theodori and Kyle 2013). The richness of the intangible cultural heritage on Barra falls within the third feature of investment with meaning and value. It also fits within an understanding of ‘place’ as both epistemological and ontological: ‘a way of seeing, knowing and understanding the world’ as well as a thing Cresswell (2004, 11). The mSAC policy process appears to recognise location and material form but does not allow space for meaningfulness in its conservation narrative. In contrast, a ‘heritage narrative’ (Theodori and Kyle 2013) created from photographs and text provided by research participants on Barra provides an example of material forms on Barra containing different meanings (Brennan 2012). Depending on the viewer, there are varying depths of understanding of the different layers contained in the images. It is suggested that, for a community with an important fishing heritage and strong relationship with their marine environment, the definition of place needs to explicitly include immaterial forms. This is not least because what lies beneath the surface of the ocean is largely invisible to most people. Herein lies an important distinction between more ‘terrestrial’ communities and an island community such as Barra which has had, throughout its history, a dynamic and complex relationship with the sea. Manzo (2014) has recognised that a variety of emotions and experience can complicate people’s emotional relationships to place. MacKinnon and Brennan (2012, 9) have suggested that, on Barra, *‘the emotional energy of belonging and responsibility the word conveys extends to the waters around the homeland.’*

The link between social practices and natural processes on Barra is strong. It can be seen in the decisions of local fishermen to set their creels (cages to capture shellfish) in the sheltered Sound of Barra in the winter, in the way many of the livelihoods (eg. fishing, oyster-farming) mark and measure time according to the cycles of nature – day and night, the seasons, the tides, the flora and fauna. This marking and measuring of time according to natural cycles, however, exists alongside, and is impacted by, the timeframes of the larger world, much of which moves at a completely different rhythm. An example is the impact that high winds and a series of cancelled ferries can have on the small businesses of the island. Drawing from the emerging field of the sociology of time, and on environmental sociology, Pahl *et al.* (2014) have observed that how we relate to, and perceive, time is subjective and is changed by our experience. This changes the way in which we relate to, and attribute meaning to, past, present and future.

Change has always been at the heart of island life, visible in both the cycles of nature and the flow of islanders leaving (and returning) home, like the rhythm of the tides. However, the mSAC designation triggered a fear of making it more difficult to develop employment opportunities on Barra and, therefore, endangered a fragile hope for the return of the young people on the island, who naturally leave at a certain age. This fear has existed through history (going back to the Clearances) and continues into the present day: people leaving and not coming back. Secondly, if (as observed by one respondent) there is an acceptance by the people of Barra that family links can only be ‘conserved’ by letting their children leave (in the hope that they will return), then the idea of an mSAC, which looks like it is trying to hold things in place, appears to run counter to this natural flow which exists in people’s way of life. Key to

the conflict is this inherent contradiction in humans that “[w]e push for change to make things better and we’re trying hard to keep things the same.”⁷ Indeed, this contradiction exists within conservation policy itself which is perceived as trying to introduce change (designations) in order to preserve biodiversity.

A way forward

It seems that different ways of framing the human-nature relationships have not yet entered the mainstream conservation discourse in a way that makes sense within that discourse. It is crucial to find ways to do so, not least because the resistance of an existing frame simply serves to strengthen it (Lakoff 2010). It is not the intent of this paper to deny the existence of benefits offered by biodiversity both to humans and to nature. Rather, it is to consider the blinkers and struggles that may be triggered by a value judgement about the ‘goodness’ of biodiversity as an ecological concept. Proceeding on the basis of the assumption that biodiversity conservation (such as the creation of an mSAC) is a desired outcome (for example, due to international, EU and national obligations) means that research into conflicts around such conservation is more likely to focus on identifying and investigating the obstacles to achieving this goal. Thus, for example, communication deficits are highlighted and ways around such problems suggested, all with a view to achieving the goal of biodiversity conservation in as harmonious a way as possible with broader societal needs and the needs of the more immediately affected community. This research is valuable, but necessarily limited by the blinkers of nature conservation as a desirable goal. It fails to take account of the ‘wicked’ problems engendered by human-nature conflicts. Such problems are difficult to define and delineate from other problems, they have no right or wrong solution which can be determined scientifically, it is not clear when they are solved, they need to be dealt with by a collective process which is experiential, interactive and deliberative and they entail more than one legitimate perspective (Jentoft and Chuenpagdee 2009; Kwakkel et al. 2016; Rittel and Weber 1973). While wicked problems are complex and messy, their very messiness opens up the possibility of connectedness.

If we ask ourselves how we think about other-than-human nature and the human-nature relationship, and what worldview we bring to our understanding, could that guide us towards understanding what kind of management tool or policy intervention might be appropriate in a given community? If we also ask how people within that community understand other-than-human nature and their relationship with it, could that open up a more nuanced approach to conservation rather than simply proceeding on the basis of the assumption that biodiversity conservation or environmental designation is ‘good’ and must be achieved? Would a more detailed understanding of the values and worldviews of those involved in a conflict indicate the appropriate place on a sliding scale of top-down to bottom-up governance?

Conclusion

The probing, through this empirical research, of local understandings and experiences of the meaning of ‘conservation’, showed that this is inextricably linked with a human value system which shapes, and is shaped by, the natural environment. Local relationships with the natural environment (notably how people work and manage it) embody and express distinctive cultural values. In this sense, the fear of loss of local control over marine resources can be understood

⁷ RP-2.4 Excerpt from interview 10.4.12

as a fear of loss of a distinctive way of knowing and sense of belonging to place. In recent years, through dialogue with Marine Scotland (the Scottish Government agency responsible for the marine environment), both policy-makers and the people of Barra appear to be moving from existing (static) to evolving (dynamic) conceptions of management of the Sound of Barra which have the potential to make visible the biocultural diversity of that environment. Key people on Barra are working to integrate the marine policy environment into the local environment as a quid pro quo to leading on management of their marine resources. A radical and innovative co-management process is emerging (Brennan 2015).

The distinctive way of knowing and sense of belonging on Barra can be seen as analogous to cultural independence (in the sense that the people of Barra value their ways, often rooted in the past, of being and doing in relation to each other and in relation to the natural environment). The engagement with the policy environment through dialogue with Marine Scotland opens up the possibility of defining and articulating, in a way which is visible not just on Barra but in the wider world of policy, what such cultural independence means. Marine Scotland's recent funding of, and delegation of management responsibility to, key local people suggests that policy-makers are recognising and acknowledging the relationship between cultural diversity and biodiversity expressed in local people's relationships with their marine environment. It seems that key people on Barra realise that having control of their marine resources is not a static concept and that they need to be open, through dialogue, to coming to mutually acceptable ways of describing this control. There appears to be an emerging acknowledgement that control of marine resources in the Sound of Barra may not resemble what it has looked like in the past, before the mSAC existed. The emerging co-management process continues to try to find a way to articulate the management of local marine resources in a way which respects existing socio-cultural structures and processes and local relationships with the marine environment while meeting the needs of the policy environment to achieve biodiversity conservation objectives.

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