Human - environment interactions on Exmoor: perspectives on the use of the national park from differing stakeholders.

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Human-environment interactions are important in all environments, providing us with resources such as space for recreation and space for food. As Brower and Carol recognise, multiple-use demands on these special resource areas has required a more sophisticated management approach to dealing with such resource areas (1). In the UK a key example of these 'multiple-use environments' are the fifteen National Parks. Exmoor National Park was chosen for this research project as it has relatively low visitor numbers, low wages and rising average age. This means the conflict over the landscape is pertinent.

Involvement with the environment is further complicated by human-human interactions, i.e. between stakeholders, since the land in question is used by a variety of people with conflicting interests. For effective management of such precious multiple-use resource areas conflicts must be well understood before they can be resolved. This study looks at the values people see in Exmoor National Park, the way these are threatened and how these can translate into conflicts. It concludes by suggesting ways forward after recognising the key differing values of each user group.

To get people's opinions of the environment they use, qualitative interviews were chosen as the most appropriate method of data collection, allowing for a personal impression of their environments. These were chosen over quantitative interviews which would impose restrictions on their impressions in asking them to rate aspects of their environment selected by someone who has their own preconceptions about the environments.

Participants were approached and asked to take part. The six participants were a South West Water representative, a Forestry Commission representative, an Exmoor National Park Authority representative and an Exmoor National Park forestry worker, and two recreational safari and accommodation owners.

The methodology was informed by Personal Construct Theory (2). This can be used for the elicitation of personal values was the basis of interviews conducted. The method of value elicitation put forward by Kelly has the aim to 'avoid conflict and resolve differences, aims to have people liking, trusting and agreeing with each other' (2). For the project, this was done using images of Exmoor National Park (see Fig 1 below). The participants selected six of the twelve provided photographs that were the best representative images of the park to themselves, with the photographs themselves based on the results of a Land Use survey by the Exmoor National Park Authority (3).

Before the interview commenced, participants were given a definition of the environment: "The natural or physical surroundings where people, plants and animals live."(4) The interview consisted of two main parts. The first part asked questions about the "key values of environments like this", the "key threats of environments like this" and "the conservation need to mitigate the threats to the values." The second part asked about any ways in which the participants thought the values of environments may conflict with each other, and then if they knew of any, to provide real-life examples of these conflicts.

Results

The data is sorted by frequency of the construct mentioned in Fig 3. The most frequently mentioned issue was 'overtourism' vs. 'tourism'. Although tourism brings many benefits to the local economy the costs can outweigh the benefits where overtourism occurs as one participant mentioned during their interview when discussing image 12, *"it's the quintessential English village, but all the shops are geared up for visitors."* This creates problems for the ageing local population, who have to travel elsewhere for convenience goods. Furthermore, the intense tourism puts some people off – *"it's exactly the place I wouldn't want to live."*

Another frequently mentioned construct was 'peace & quiet' vs. 'tourism'. One example from a participant were the complaints that South West Water had received prior to the Iron Man competition, which attracts thousands of visitors. The residents were not happy with the traffic volumes that were expected and the noise from the event, however the local businesses, accommodation owners and organisations outnumbered the residents.

Biodiversity vs. **Recreation** is a particularly delicate construct. Exmoor's landscape is partly owed to the existence of grazing animals, and the fact that they're allowed to roam freely through a lot of the moorland. Grazing keeps the plants trimmed back enough to prevent vegetation succession described by one participant as "*scrubbing-up*," but if too many animals were let loose then typical overgrazing effects may follow. In an extreme case this could lead to stripping too much vegetation, along with soil compaction, potentially resulting in excess surface run-off and floods.

There were also some potentially worrying constructs mentioned, for example when one participant mentioned that one species of animal was more important than another, which is expressed as **animal species 1** vs. **animal species 2** in the construct frequency diagram. There was also talk of one species of plant being more important than another. While these were not mentioned often, it reflects the sad nature of biodiversity management. I was fortunate enough to witness a discussion between two conservation workers about which species to save. As one said to the other, *"but they're not on the European protection list."* The orders to save particular species come not from the local workers who know the landscape, but from an office building in another continent.

#	1. Key value of environments like this	2. Key threat of landscapes like this	3. The conservation need
12	Landscape quality, stereotypically "English"	Transport	Possibly a bypass
7	Wildness	Vehicular erosion, planning applications	Restrict access by provision, planting vegetation
11	Agriculture	Buildings	Strategies, planning
5	Views, coastal environment	Not too many threats, possibly grazing	Manage priority sites, prevent 'scrubbing-up' of bracken
1	Small nature,' historic nature, conservation	Urbanisation, mechanisation	Planning mechanisms
10	A bit of everything - biodiversity, agriculture	Forestry	Good planning and landscaping technique

4. You have identified the key value of each image. Could you think of ways in which these might conflict with each other?

"Everything needs balance'
Conservation vs. Forestry, Recreation & tourism, vs. Forestry, Residents vs. Forestry

Fig 2. A data collection sheet

Discussion

The constructs discussed highlight a few of the conflicts within Exmoor National Park. Also the four particular cases all have unresolved conflicts or unsatisfactorily resolved conflicts for one of the parties involved. This highlights the need for appropriate and effective mediation between the groups as Cormick and Bingham suggest (5). It is clear that using PCP interviews with visual stimuli elicited key values from the participants. Ideally with more time and resources a more comprehensive study with more images in greater detail, more participants of each group and additional user groups would be interviewed, leading to a far more detailed study.

Project Outcomes

This study has successfully elicited the inner values and conflicts of users of Exmoor National Park. It has used a newer strand of PCP by using representative photographic stimuli, and suggests that mediation would be appropriate to follow up this study. This creates a framework for mediators to use when resolving environmental conflicts. Ultimately, it is proposed that using this framework, the combination of PCP interviews, visual stimuli and mediation can solve any environmental conflict, providing that a trained mediator was involved to make sure that conflicts were resolved satisfactorily for all parties. This would allow for better management of the National Park, ensuring sustainability for the park's activities and cohesion between user groups.
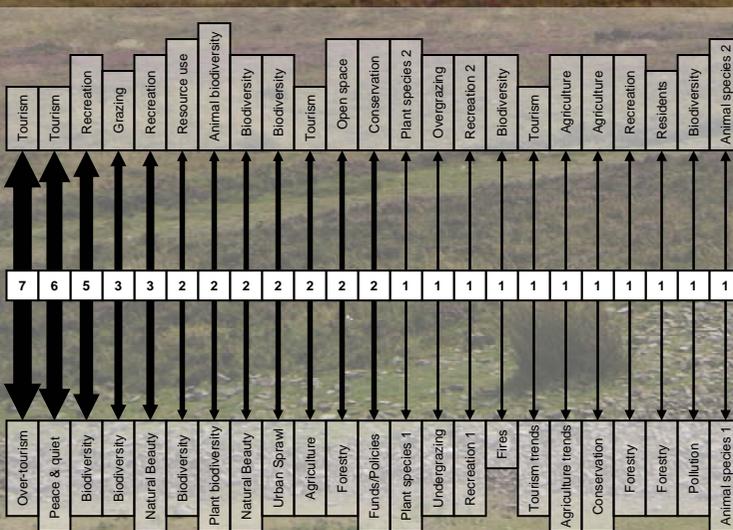

Fig 3. The results from the PCP interviews. The items in the box represent the constructs mentioned in the interview by the participants. The thickness of the line and the number in the box are show the frequency with which each construct was mentioned.

Top row constructs: Tourism, Tourism, Recreation, Grazing, Recreation, Resource use, Animal biodiversity, Biodiversity, Biodiversity, Tourism, Open space, Conservation, Plant species 2, Overgrazing, Recreation 2, Biodiversity, Tourism, Agriculture, Agriculture, Recreation, Residents, Biodiversity, Animal species 2

Frequencies: 7 6 5 3 3 2 2 2 2 2 2 2 2 1 1 1 1 1 1 1 1 1 1

Bottom row constructs: Over-tourism, Peace & quiet, Biodiversity, Biodiversity, Natural Beauty, Biodiversity, Plant biodiversity, Natural Beauty, Urban Sprawl, Agriculture, Forestry, Funds/Policies, Plant species 1, Undergrazing, Recreation 1, Fires, Tourism trends, Agriculture trends, Conservation, Forestry, Forestry, Pollution, Animal species 1

Fig 1. The images selected by one participant.

References
(1) Brower, David J. and Carol, Daniel S. (eds.) (1987) *Managing Land-Use Conflicts*. Durham: Duke University Press.
(2) Kelly, George A. (1970) *A Brief Introduction to Personal Construct Theory* IN: Bannister, D. "Perspectives in Personal Construct Theory." London, New York: Academic Press.
(3) Exmoor National Park Authority
(4) Skinner et al (2003) *Complete A-Z Geography Handbook*. Hodder & Stoughton.
(5) Cormick, Gerald and Bingham, Gail. *Environmental Mediation* IN: Brower, David J. and Carol, Daniel S. (eds.) (1987) *Managing Land-Use Conflicts*. Durham: Duke University Press.

A Journey Round Exmoor: Also, to accompany this study is a documentary video, a clip of which can be seen playing here. This video introduces both the landscape of Exmoor National Park, some of the key attractions and issues within the park discussed in the study, and introduces the participants interviewed for the study.

For details of, or to see the video, please ask Midas Gordon-Farleigh, or email 05018047@brookes.ac.uk