Impact based management of recreational uses: a fair share of environmental effort? A sociological approach applied to two French national parks

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Theoretical framework and methodology

This presentation focuses on the impact of nature-based activities on protected areas from an environmental sociology perspective. Without denying their ecological effects (Ng, Leung and al., 2018), this approach underlines that those impacts also raise social issues, as with all environmental considerations (Candau and Deldrève, 2015).

We argue that managing these activities on the basis of their impact on the natural environment is an "environmental effort" for users, that is to say a socially differentiated and potentially unfair contribution of social actors to environmental protection policies (Deldrève and Candau, 2014).

Considering nature-based activities only as a potential hazard for environmental protection may have the same social effects as categorizing overuse as a danger (Claeys and al., 2011). In addition, it could lead to the exclusion of human populations from the territory, and may create or accentuate environmental inequalities (Deldrève and Candau, 2014). Since the 1980s, this issue has become a topic of increasing interest for policy makers and researchers, under the influence of the "Environmental Justice" movement in the United States. More recently, both have been recognized as a crucial issue, even in outdoor recreation (Taylor, 2000).

Ecological paradigms as well as the political and legislative international contexts in which these protected areas are developed have also evolved to better recognize human activities. But what are the concrete effects of these evolutions in terms of environmental effort? Who defines environmental effort for users in natural areas and how is it argued? What principles of justice govern the arguments put forward by different stakeholders? What are the different forms of effort and how different stakeholders judge them?

Our research contributes to a French ANR program (Candau et Deldrève, 2014-2019) with an approach based on the analytical framework of environmental effort (Deldrève and Candau, 2014; Deldrève and Claeys, 2016) tested in two case studies: the *Calanques* national park, near Marseille, and the La Réunion Island national park. Our corpus is built on data from a qualitative survey) of stakeholders and managers, as well as a diverse range of users of these two natural parks (hikers and trail runners, swimmers, mountain bikers, etc.) whose activities may be criticised on account of their impact on protected nature. All 63 of these semistructured interviews were recorded and fully transcribed, and were subject to manual thematic analysis. These data were completed by direct observation of outdoor events and by the analysis of various documents.

Main results

Limiting nature-based activities based on their impact: a collective principle for managers contested by users

In the two national parks studied, managers aim to limit activities because of "environmental protection". However, some users, recognized as "historical" and "ecofriendly" (not precisely defined), benefit from advantageous rules for their activities and events. In the Calanques, managers put forward the idea of limiting groups of hikers and races on trails to 100 participants because of their supposed (but unproven) impact on the natural environment. In this context, the definition of ecofriendly uses cannot be treated objectively, and a lack of reliable data about the impact of those uses may exacerbate emotionally and ideologically loaded discourse from all the protagonists involved.

In the national park of Reunion Island, impact-related rhetoric can lead to unequal environmental effort being required from users who practising the same activities. Walking on trails has continued to be permitted since the creation of the park, so many tourist hikers interviewed feel a weak environmental effort. The situation is different for numerous local walking clubs, for whom walking forms part of a wider set of cultural practices, such as picnicing and other get-togethers, - which are either restricted or forbidden. In their mind, there is no sense in separating walking from these practices, and they endure a higher level of environmental effort than users (often tourists) only interested in hiking.

Managers and local authorities also share and apply the principle of limiting or banning some activities because of their impact. However, this common principle is called into question for two main reasons: Firstly, studies on the impacts of local uses (cross-country running, hiking, mountain bikeing, etc. are rare and not particularly convincing, because impacts are very difficult to evaluate, and their causes are numerous, as recognized by a few managers. Secondly, users strongly criticize the principle of limiting their pratices based on purported impacts when they believe that there is a "double standard" and "queue jumping" among recreative users.

Beyond controversies on impact: feelings of environmental (in)justices in living territories

In many cases, recreative users do not separate their activities from issues affecting the territories in which they live (Ginelli, to be published). In the two parks, their recurrent discourse about "double standards" reveals feelings of injustice shared by many recreational users towards others activities. For example, in the Calanques, newcomers and 'traditional' users see increasing restrictions on their activities, while at the same time the public authorities and the scientific council of the park have allowed -under conditions- a multinational industrial company to continue to pump toxic sludge into the Mediterranean in the same area (figure 1). This situation creates widespread feelings of injustice, and discredits the park's arguments for managing nature-based activities on account of their impact.

Discussion

"Carrying capacity", "overuse" and "impact" are linked by an ecological perspective with the same ambiguity: they are both scientific concepts and management norms (Claeys and al., 2011). As a consequence, difficulties in assessing them weaken at once these concepts and their legitimacy when used for management of protected areas. Research into "carrying capacity" underlines that it is not an absolute value or a "miracle number" but depends on values and needs to be defined from a management perspective (Bergère and Le Berre, 2011). Such a perspective, that "could leave way for an 'accepted' socio-natural system" (Claeys and al, 2011: 89), may be based on a combination of relationships and roles for researchers, managers, and stakeholders that we will discuss.



Figure 1: "Future of the Calanques: toxic sludge allowed, mountain bikes forbidden", poster of Mountain Bikers Foundation-France, 2017

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