

Indigenous Hunting and Wildlife Conservation: Tension Between Scientific and Indigenous Knowledge and Perceptions

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In Taiwan, the hunting issue is a very important claim of the indigenous people of various ethnic groups. This paper will try to understand the issue faced by wildlife management on the island when encountering indigenous hunting and cultural practices. The concept of conservation is rooted in a Westerner mode of thinking, but the reality and practice of wildlife conservation is in fact more complex and varied than a single definition. Local practices have their own wisdom that does not always fit with scientific ones. Despite efforts to increase collaboration between scientists and indigenous people, and integration of the TEK, there are still many conceptual and practice conflicts and misunderstandings. The realities of conservations are multiples and that is what this paper will try to highlight by using political ecology and political ontology. The case study of the Mountain Hawk-eagle conservation in link with the Paiwan feathers culture will be taken as an example to better understand the difficulties that conservation projects face when various ontologies come together.

Keywords: Conservation, Ontology, Mountain Hawk-Eagle, Paiwan, Wildlife

Introduction

On March 9 2021, the Supreme Court of Taiwan held an unprecedented hearing. A Bunun hunter Tama Talum (王光祿) was convicted of violating the Act Controlling Guns, Knives and Ammunition (槍砲彈藥刀械管制條例) and the Wildlife Conservation Act (野生動物保育法). After two first hearings, in March 2021, this case finally went to the Supreme Court and experts were invited to discuss the problem of hunting rights (Chen & Guo 2021).

The issue of wildlife hunting is crucial for Taiwanese indigenous people and represents one of their main claims. This activity was a way to access nutrients and connected them to the natural and spiritual world. The limitation of the hunting practices by the Japanese then by the KMT has deeply affected the indigenous societies (Taiban 2006) and their knowledge. Hunters, to be efficient, are developing rich banks of information on animals that are acquired by personal hunting practices over a long period of time and transmitted down from older generations (grandfather, father, uncle, cousin). Indigenous people are still hunting and wish to be more free to do so, without risking being arrested by the police, and without hiding, or being considered a poacher. As some might think, why

should a cultural practice that used to bring glory, now become a shameful activity at the margin of the law?

In the context of the fight for hunting rights, what does conservation mean? Conservation is a modern concept that can not be apprehended as a single reality with a single definition. The concept of conservation should not be understood as a single reality depending on a western definition, but should instead be analyzed as a mental framework that can diverge according to local knowledge, individual and cultural perceptions, and specific ontologies.

This paper will first introduce different theoretical approaches to conservation issues. Then I will analyze the question of the Mountain hawk-eagle conservation in Taiwan in link with the Paiwan feathers culture.

Conservation: Hunting Culture and Modern Wildlife Management

In the present day the concept of conservation has become a keyword of environmental management and a pressing necessity in the Anthropocene age, where the speed and amount of species extinction are increasing (Camacho 2015). Biodiversity conservation and management are concepts directly related to modern science ontology, however, often do not cause concerns for indigenous people (Escobar 1998).

Environmental science represents a codified, normalized and globalized set of knowledge that has become the main narrative diffusing through the world ideas, concepts, practices and policies in order to manage nature and organize the relationship between humans and the ecosystem (Robbins 2011). Environmental knowledge is heterogeneous and complex, rather than homogeneous and singular, but some knowledge productions gained more recognition than others, they are considered as truth or “conventional wisdom” (Goldman et al., 2011). These kinds of knowledge are what is usually considered as “science,” a reliable, secure, objective source of information, produced through official and recognized institutions. Science, in this way, is often opposed to cultural knowledge that is locally situated, related to some population’s beliefs and way of life and generally unconscious or unformalized. In Taiwan, the indigenous people's traditional knowledge and perceptions of their local environment and natural resources are often quite different from the normalized science knowledge promoted by conservationist policies (Berkes 1999). This discrepancy between global science and locally produced, culturally significant knowledge, can lead to some tensions in conservation projects.

Conservation is defined as the careful use, management and protection of some kinds of supplies in order to make them last longer. Today it is commonly used to refer to the study of ecological and natural resources such as water, land, wildlife, etc. to develop strategies preventing their loss or degradation. It concerns biological diversity, as the diversity of life should be protected at various levels: from ecosystems to genes, passing by species (Pimm 2020). Nevertheless, this definition is both too narrow and too broad. What we generally consider as conservationist practices derive from modern science and a way of thinking about resources as manageable objects under the power of human technologies. Though, looking at indigenous people and their relationship to the natural environment, other kinds of conservationist ontologies can be observed.

Political Ecology and Political Ontology: How to Understand Conservation Issues?

Political ecology places power at the center of the analysis and studies how population, community, society, culture are embedded into larger political, economic and social structures. In this view, the local is subordinated to a global system of power relationships and must be understood within this subjection (capitalist penetration effects). In conservation, different human groups come in contact with the management of some natural resources. It often leads to conflicts because of the various conceptions of how resources should be managed. Actors do not have the same ability to promote their ideas and will, and receiving projects are often the result of top-down decision making. The study of those power dynamics helps to understand the success, resistance and problem arising from conservation projects.

Though, to really understand conservation issues, it is not only power dynamics that need to be analyzed, but also the lack of common perceptions and realities. If conservation is only contemplated by modern western language, can it encompass the indigenous conceptions of wildlife management? The concept of political ontology can help to go further and see how various people and groups develop a large variety of realities. There is not a single reality of conservation but a multitude of realities that vary greatly from one person, or one group, to another. Most of the conservation concepts and strategies are coming from a neoliberal system of thinking, for example, the idea of ecosystem service, however, this can lead to conflict and leaves little space for other ontologies such as indigenous cultures (Bormpoudakis 2019). The ontological turn has brought scholars to interrogate further how people consider and shape the world through their specific understanding of reality (Kohn 2013, Viveiros De Castro 2014). Considering people ontologies is helpful to complement political ecology studies of conservation. It expands the discussion and understanding of other people's specific perspectives. These different perspectives need to be taken into consideration in order to offer effective and sustainable solutions against the threat to the local ecosystem.

Political ontology has been criticized by scholars, such as Bormpoudakis (2019), that this theory is too simplified and generates a new kind of binary opposition: between a modern type of ontology against an indigenous ontology. Looking at Blaser's use of the concept of political ontology it rather describes the multiple possible worlds that each people (and not only groups or collectives) develop depending on their own culture, locality, subjectivity, experiences, and emotions. Bormpoudakis second critique concerns the idea that those two opposed ontologies (modern versus indigenous) do not go together because of their incommensurable divergences. Though ontologies appear in other scholars' papers (see Sullivan 2017, Theriault 2015, Blaser 2009) as capable of transformations linked to what is experienced and maintained by individual, cultural or social groups. So, there is never a singular and uniform reality that would be perpetual but rather multiple realities which are variables and diverse.

Following Blaser (2009), on the one hand, multiculturalism, used by political ecology and political economy considering that there are various cultures with different points of views on a single nature or reality, and on the other hand the multinaturalism concept as first defined by Viveiros De Castro (2014) and used by political ontology. This last concept considers the existence of a multiplicity of natures or realities and focuses on what kind of worlds are enacted by people or groups, as well as the way those realities are coming into being in some situations, notably in conservation projects. So, through the conservation conflicts, the need to understand the power dynamics engendered by

the merge of modern ontology and indigenous ontologies is visible (Blaser 2009). Nevertheless, Blaser (2009), considers modern ontology to be a single dominant one, in opposition to indigenous realities that are plural. However, I rather consider those modern ontologies, as indigenous ontologies are plural because within the modern dominant realities there is a large panel of voices, discourses, and theories that also do not subsist or comply with each other.



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Hawk-eagle Conservation and Feather Culture

In Paiwan culture, the Mountain Hawk-eagle is an important bird related to the spirits, and its feathers represent the chief authority within the community. The Hawk-eagle feathers culture was customarily regulated by many rules and taboos, restricting the way people can, or cannot, wear feathers, and what kind of feathers can be worn. For example, the chief can wear one to three feathers (depending on the community rules) embedded at the front of the headdress. The warrior might be rewarded for their bravery by receiving the right to wear hawk-eagle feathers on their knife sheath or on the back of their headdress pointing downward. Each Paiwan community has slightly different rules concerning the number, the kind of feathers related to various social ranks and the way of wearing those feathers. These feathers symbolize social order, since they indicate the chief status and the social order of the society.

Currently, the eagle population has dropped and is now classified as an endangered species, however, a black market of feathers has developed, increasing the price of this new commodity (Sun 2010). This leads to the disagreement between local hunters and scientists as the Paiwan still wish to use hawk-eagle feathers while scientists worry about its extinction.

Discussions with Paiwan hunters and elders have shown that there are important disparities between how the Paiwan people and the scientists talk and think about the hawk-eagle, but also how each perceives the way conservation should be implemented. Slowly, the divergences between conservation discourse and indigenous thinking schemes have revealed the gap that separates them. The Paiwan do not want to see this eagle totally disappear but they still wish to hunt it to collect its feathers and perpetuate this human-animal bond that relies on some of the old customs; such as, chief offering feathers to the oldest children for his/her wedding, or chief wearing hawk-eagle feathers on the headdress for important events and ceremonies. Due to the difference in understanding conservation, the dispute between scholars and indigenous people is on rise. For instance, when scholars and scientists speak about the conservation of the eagle population and legislation against hunting, indigenous people treat this as a restriction of their way of life, their customs and traditions, and an obstacle to transfer old knowledge. For them, preserving their past culture should not become a synonym of ecological loss, despite what the scientists claim. Many Paiwan people are discontented that some blame them for the species extinction. For instance, my informants often explain how the past colonial administration and the forestry department have been exploiting the natural resources in the indigenous territories and slowly inducing the degradation of the local ecosystem and, due to overhunting or habitat loss, animal populations have declined.

In Taitung county, one of my informants, an elder hunter expert in boar hunting, told me that in the past most of the men were hunters from an early age, though, the wildlife was abundant and the resource never lacking. However, today, the government has restrained all the hunting and gathering rights for the indigenous groups and paradoxically more and more species have become extinct. By those words, he made a connection between the modern government's wildlife management and the decrease of biodiversity. For him, indigenous practices have proven to be sustainable and hunting can not be presented as a threat to the local ecosystem since the species extinction has been increasing since the restriction of the indigenous hunting rights by the colonial governments. The Paiwan elder expressed his concern about the incomprehension the indigenous people are facing because of the government restrictions of their culture and way of life. Additionally, the government is also depriving the indigenous people of their connection and knowledge of their environment. At once, the scientists express their inability to understand why people would keep hunting the eagle if they themselves estimate this animal as culturally important. Shouldn't they be the first to want to preserve it?

Laws and top-down control have shown to be ineffective against the indigenous behavior and the misunderstanding on both sides seems to just be reinforced along with the increasing effort to protect the eagle. The past attempts to make hawk-eagle hunting illegal have, on the contrary, pushed to the development of a black market for selling and buying feathers (Sun 2010). Conservation management focusing on respect for the traditional perceptions could be more successful because it would open the door to the maintenance of past customs.

From a political ecology point of view, few elements can be observed. In the past, the Paiwan, like many indigenous people, had their own way to assure the perpetuation of the wildlife and the local ecosystem; that was also a way to insure their own livelihood. The impacts of colonization and the integration of a modern society and market economy have been very disruptive for the past social and cultural system. The values associated with the natural ecosystem have been transformed under outside pressures and it brought changes to the social system. Despite this, indigenous people are still fighting to restore and reaffirm their past customs and system of knowledge.

Conservation scholars are speaking a lot about traditional ecological knowledge, but in reality, it is very hard to recognize the ability of the indigenous community to sustain their local resources. In the past, legislation has been established to forbid hunting of the hawk-eagle because of the increased hunting activity which led to the drop of the population. Though, the Paiwan are still claiming their cultural right to wear the feathers, which are a very important symbol within their social organization of traditional authority. The possible restoration of the chief power is also directly interlaced with the question of the feathers. Could it then be possible to reaffirm the local social organization disrupted by the colonial power while reducing the number of feathers' users and going back into a more sustainable pattern of use of the feathers? Can presently the government and scientists put enough trust into the indigenous cultural system and give more autonomy to the local actors to reimplement their cultural system?

Using Blaser concept of political ontology, we observe that since Paiwan indigenous and conservationists enact different realities, the communication is problematic and it explains the past difficulties to develop efficient projects. Elders and hunters say they do not understand why forbidding hunting and following scientific management of the eagle population would help the Hawk-eagle population to recover. Similarly, the conservationists express their surprise when facing indigenous attitudes of what appears to them as a paradox: to worship the hawk-eagle and claim the importance of it to the Paiwan culture and still want to acquire new feathers despite the endangered status of this bird. Conservation projects are encountering many difficulties because of the mutual lack of understanding and the divergence of goals. Though, for both parties, special values are attached to the hawk-eagles. In the past, feathers circulation created values by representing social hierarchy and individual representation of achievement enacted by giving or receiving those feathers. Presently, values are still attached to the feathers but new values have arisen, such as economic and political capital, or social achievement related to the modern social structure. For the scientists the eagles represent a challenge in the present time of species extinction; it is one more species that must be protected to avoid its total disappearance. Knowledge on the eagles is precious because they help accumulate scientific information that can contribute to their protection. When they talk about strategies of conservation they also express this modern conception of its own ability to act and decide what species to preserve or favor. The eagle conservation represents the power of science to act on the natural world and forge it according to its own view.

Conclusion

There is a clear effort of some groups of scholars and scientists in Taiwan to work in closer collaboration with the indigenous people and to better understand their culture and answer to their needs. However, it seems difficult to give an equal place to indigenous knowledge and scientific knowledge. Scientific frameworks and concepts such as traditional ecological knowledge can be useful tools to develop more participative strategies but often are limited. Following Nadasdy (2003), they maintain the existing situation rather than really challenging the hierarchization of knowledge and the top-down control of the state. Talking about conservation is a difficult topic since the realities of what is or should be conservation are various rather than uniform. Groups and individuals develop their own ontology that impacts the way they can understand the reality of conservation. Those differences in ontologies make conservation projects arduous to implement. An acceptance of the divergence of realities in which people live and that they enact would be the first step for better communication. Ontologies and values are important concepts, and they should be analyzed to link

various actors to their environment and observe the interlacing of interaction between human and non-human actors.

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