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Everyone and everything is a boundary object – an empirical account from a modest human boundary object

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Abstract

In this paper, I grapple with the application of a boundary object, in its position at the centre of a cross-cultural project in Indigenous northern Australia involving discrete knowledge communities—Yolŋu Indigenous landowners and hydrogeologists engaging in the hope of developing a community-led water management plan. Although I was officially assigned as a community engagement officer and a language translator, I found myself becoming a boundary object, comparable to a three-dimensional map of Aboriginal land. My positionality was considerably unsettling at times due to a culmination of disconcerts surfacing from my figure as a knower adopted into Yolŋu kinship system, as modest kin to the Yolŋu Aboriginal landscape of land and people. As a witness to the ways in which Yolŋu family live and care for their environment with the absence of centrality, I extend the notion of boundary object to the central understandings of Yolŋu kinship practice, where everyone and everything is a boundary object.

Introduction

In this paper I analyse the notion and the application of a boundary object with which discrete knowledge communities negotiate means for productive engagement, using the contemporary example of Yolŋu Aboriginal water experts and hydrogeologists working together. The former involves the traditional owners of Aboriginal landscape knowing (ground)water with its ancestral and kin connections, and the latter involves the scientific knowers of the numerical quantity and quality of (ground)water and its interaction with the surrounding environment. It certainly needs reciprocal care and hard work to enable the two different knowledge communities to connect well enough to go on together. Situating this story as an empirical account emerging from Yolŋu Aboriginal country in northern Australia, I explore the Australian Research Council (ARC) linkage project 'Cross-cultural management of freshwater on resource-constrained islands' (2016-2019) that triggered my empirical noise and nurtured the way I came to know difference differently. I worked with Professor Michael Christie in leading the community coordination and Indigenous knowledge aspects of collaboration. The project was designed to evaluate the groundwater resources of the resource-constrained island of Milingimbi in East Arnhem Land, and to incorporate hydrogeological findings with Yolŋu Aboriginal water traditions, in the hope that we could repurpose findings for community-led adaptive water management strategies. This transdisciplinary work employed a three-dimensional map of the island, initially as a tangible tool for integrating diverse forms and ways of knowing Milingimbi water.
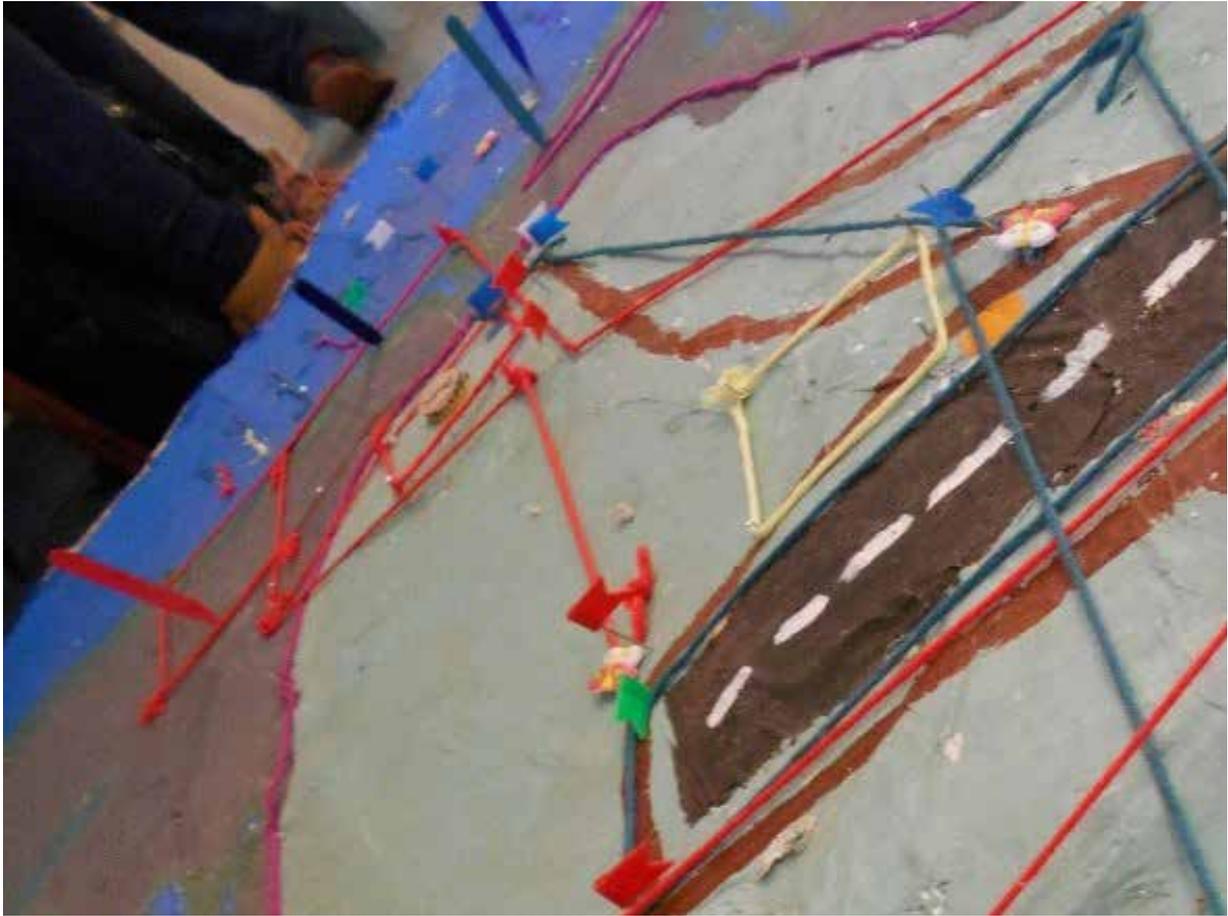
Positioning myself

The role of a community engagement and coordination officer is quite broad, and needs to be locally negotiated and designed for the people, places and organisations with whom we work. The Remote Engagement and Coordination Strategy (Department of Housing and Community Development, 2015) defines remote coordination as the processes by which government practices, policies, programs, and services for remote communities are collaborative, integrated, and aligned. Not limited to government agencies, these definitions should be applicable to academic researchers engaging and working together with remote communities. Of equal importance, positionality is a matter of concern – revealing my own uncertainty about where I should situate myself in dialogues between different knowledge communities. My positionality in relation to the landscape of Milingimbi Island is mandated by my long-term adoption into the Yolŋu kinship system. In early the 2000s, I became close kin to Yolŋu authorities who participate in this project as co-researchers and mentors; they are my grandmothers, fathers, cousins and so forth.

One of the focal points of this project was the production of a three-dimensional map. Led by socio-geographers and incorporating hydrogeological data collected at various sites on the island to identify different characteristics of groundwater systems, the map was hand-crafted by Yolŋu water experts using mostly locally available materials. It was hoped that this visual representation of the island would function as a tangible space-and-time object to facilitate cross-cultural communication between the two different groups of water experts. Yolŋu elders marked water sites, such as wells shaped by ancestral beings, underground water paths through which an ancestral snake slithered, and also contemporary infrastructures, such as a sewage pond, community water tanks and bores— these were indicated on the map with different coloured pins and yarns accompanied by a legend (see Figure 1). In contrast, the hydrogeologists and socio-geographers drilled holes in the map to insert wooden columns (re) presenting the characteristics of the fractured rock aquifer— its depth, quantity, and salinity level indicated with different paint colours.

The development of the map gradually revealed that Yolŋu Aboriginal water and hydrogeology (re)presented on and underneath the map were not integrated because of the incommensurable 'sensing practices' (Spencer, Dányi, & Hayashi, 2019) with which Milingimbi water is differently known. Such different sensing practice is not merely a different perspective or value of water; rather it reflects disparate metaphysical commitments with different meaning-making and -doing, which is often not up for negotiation, thus it is not an easy task to reconcile such different knowledge communities. Under such conditions, to connect these practices just enough, the map was required to alter its role to be able to hold each community's disparate epistemic practice with equal seriousness and to disregard any illusory sameness.

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Figure 1: Section of three-dimensional map (re)presenting Milingimbi groundwater

Observing the map's transformation into an artefact that is robust enough to adapt to local needs and constraints of organisations, I applied the concept of 'boundary objects' (Star, 2010; Star & Griesemer, 1989) to the map. The boundary object of the locally handcrafted map resided between Yolŋu water experts and hydrogeologists and carried the hope of maintaining a shared identity of water as a common interest or concern, and holding something meaningful on both sides. Circling around the map as a translator of different languages and different waters, we (the map and I) were frantically busy carrying messages across to both parties to create space for different water practitioners to participate in the narrative of collaborative water management. Observing me grappling with multiple meanings of the map, constantly posing questions, slowing down the process of translation, often sweating profusely, a social-geographer in charge of the mapping activity smiled and said "without you as a spokesman for the map, or another boundary object, the messages from both sides won't come through." I certainly took the message as a compliment, noticing that the map juxtaposed two different water knowledges, yet could not translate them without someone or something that helped it do so. I was momentarily positive about my role as a boundary object partnering with the map to maintain a common concern in a 'trading zone'— the locality of exchange when and where two distinct cultures living near enough to trade and share some activities while diverging on many others (Galison, 1999), and locations in which communities with a deep problem of communication, due to a degree of incommensurability, manage to communicate

(Collins, Evans, & Gorman, 2010). However, my positive feeling did not last long due to the culmination of uncertainty that heavily unsettled me in trying to maintain a common interest or concern across different water practitioners. As such, I began to question the role of someone and something that could bring others into an imaginary common ground; rather I became comfortable with observing and analysing how two different waters could be differently converging and diverging, yet holding together in the absence of stable agreement. I would argue that reciprocal care and responsibility surrounding incommensurable epistemic water practices can emerge when and where everyone and everything participates in collaborative knowledge production as a boundary object.

Living with difference

In analysing the origin of Yolŋu Aboriginal collaborative knowledge production, I draw on an insight central to Yolŋu epistemic practice of gurruṯu (kinship). Each and every Yolŋu, as an ineluctably local knowledge practitioner, is situated in a matrix of gurruṯu through both matrilineal and patrilineal lines; as a baby is born in to one of two moieties, Dhuwa or Yirritja; importantly Yolŋu always know their moiety as opposite to its mother, yet not from the same moiety as its father (Djirrimbilpilwuy Garawirrtja cited in Williams and Fidock, 1981). Patrilineal links entitle distinct knowledge ownership of songlines, paintings, stories and many other constituents of discrete clan estates that were once ancestrally invested in particular places by particular ancestral beings. Matrilineal links form an epistemic collectivity within which Yolŋu authoritatively and peacefully live with their world under reciprocal mentoring and supervision (Guyula, 2015). By virtue of being Yolŋu, individuals live in a confluence of many different knowings and doings of their patrilineal and matrilineal clan groups. In such epistemic assemblage connected by matrilineal ascendants and descendants; as everyone is a child of mother, Yolŋu individuals are either Dhuwa or Yirritja boundary objects. Put concretely, a person having a Yirritja mother and Dhuwa father, is a Dhuwa figure to know and enact the Dhuwa world, as well as a Dhuwa boundary object being obligated to its mother's Yirritja world as a caretaker conducting supervision and ongoing evaluation.

Not limited to human actors, other-than-humans are crucial actors in knowing and doing the collective assemblage of the Yolŋu world. In the creation of East Arnhem Land, the landscape was shaped by ancestral beings in other-than-human figures such as bees, serpents, and dogs, as they were flying, traversing, singing, canoeing the country and naming everything. On Dhuwa country that emerged next to Yirritja country during the creation, Yirritja and Dhuwa people live together, Yirritja seasonal wind blows from the south, and Dhuwa flowers bloom about which Dhuwa people sing and paint under the supervision of Yirritja caretakers with a mutual sense of respect and seriousness. At every location of Yolŋu country, everyone and everything positions themself as an actant in the confluence of Dhuwa and Yirritja knowledge communities becoming a boundary object that connects its counterpart of humans and other-than-humans; otherwise they are divided and indifferent to each other. In such reciprocal carefulness in collective knowledge production involving humans and other-than-humans, those actants of the Yolŋu world are ongoingly 'co-becoming' (Burarrwanga et al., 2019) in the absence of the ontological split between the social and natural.

My premise here – that 'everyone and everything is a boundary object' – is familiar meaning-making and -doing concept among Yolŋu language speakers. Gurrpan is a predication in Yolŋu language meaning 'to call or relate someone or something with a kin term'. It does not

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designate entities as objects, rather designates relations between connoted entities. Drawing a story from one day during the wet season, out of the window in my office, my adoptive Yolŋu sister spotted a frilled-necked lizard resting under green leaves on the shaggy trunk of a cycad palm, and said "ŋunha ya' rraku ŋama' nhina ga rrakal gutharrawal… ŋarraku ŋamay' li ga warraga gurrpan nhäwi ŋapipi'mirriŋu nhanŋu" (There look, my mother is on my grandchild… my mother relates herself with the cycad palm as her great-grandchild). This is what the youngest Yolŋu child learns by nature of growing up Yolŋu. The reciprocity of care and obligation assigns humans and other-than-humans to intersubjective figures interpreted by particular kin at a particular site as situated knowledge. This involves an ineluctably spatiotemporal, yet traditionally durable knowledge practice between everyone and everything of Dhuwa and Yirritja knowledge communities.

Knowing the difference differently

My awkward positionality as a community engagement officer and a Yirritja person adopted into the Yolŋu kinship system slowly began to take shape. I was prompted to walk slowly and constantly reorient myself in the midst, no longer in the middle, of Yolŋu elders and hydrogeologists to be able to grasp various moments of the situational reality emerging and diverging from going on together at a billabong, regional council, or a barbecue lunch. I have extended the concept of boundary objects as a useful analytic resource to bring differences together while holding them apart, as a faithful commitment to the Yolŋu Aboriginal ethos of knowing and doing different knowledge communities together. Rather than designating a map or a translator as a boundary object that could detach from oneself, one matter of care is to situate oneself as interdependent on one's own and other knowledge communities, so that everyone is involved in a process of knowledge production in a particular landscape within Indigenous Australia.

Producing such situated knowledge is unlikely to be a comfortable journey of finding a set of similarities between discrete knowledge communities, but rather a careful negotiation in going on together with differences; which is succinctly articulated in the title of a music track composed by my Yolŋu uncle, Minyapa Gurruwiwi (2015)— Wiripu Miṯtji, Waŋgany Mala (Different Groups, One Group). The empirical bewilderment that I experienced as a boundary object led me to become a 'modest witness' (Haraway, 1996) observing how Milingimbi water was situationally converging by holding difference, and diverging by holding sameness, and taking difference as ongoing productivity and sameness as unproductive idleness. Both the difference and sameness of Yolŋu Aboriginal water and hydrogeology certainly need to be nurtured with mutual carefulness, so that both waters and people are safe and healthy, in the same way that a Yirritja nephew makes a fire for a cup of tea with his Dhuwa maternal uncle sitting at the bank of a Dhuwa billabong.

Acknowledgements

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