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Objective styles in northern field science

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ABSTRACT

Social studies of science have often treated natural field sites as extensions of the laboratory. But this overlooks the unique specificities of field sites. While lab sites are usually private spaces with carefully controlled borders, field sites are more typically public spaces with fluid boundaries and diverse inhabitants. Field scientists must therefore often adapt their work to the demands and interests of local agents. I propose to address the difference between lab and field in sociological terms, as a difference in style. A field style treats epistemic alterity as a resource rather than an obstacle for objective knowledge production. A sociological stylistics of the field should thus explain how objective science can co-exist with radical conceptual difference. I discuss examples from the Canadian North, focussing on collaborations between state wildlife biologists and managers, on the one hand, and local Aboriginal Elders and hunters, on the other. I argue that a sociological stylistics of the field can help us to better understand how radically diverse agents may collaborate across cultures in the successful production of reliable natural knowledge.

1. Introduction: Incommensurability and epistemic neighbourliness

If you leave Winnipeg travelling north down the Red River, you will eventually end up in the southern tip of enormous Lake Winnipeg. If you continue travelling much further north, until about midway along the eastern edge of the lake, you will arrive at the mouth of the Berens River. This is the home of the Berens River First Nation, a predominantly Ojibway/Saulteux-speaking people. It was among them that Irving Hallowell conducted ethnographic fieldwork in the 1930s and 1940s.

Hallowell argued that the Berens River Ojibway were animists, in the sense that they recognised an *a priori* potentiality for animation, under specific conditions, in certain types of apparently inanimate objects. For example, he found that although the Berens River Ojibway did not experience stones as animate in general, they did experience specific stones as animate in specific contexts. A local informant told Hallowell that he had seen a big round stone move during a Midewiwin ceremony. The animate behaviour of the stone under these circumstances was considered a manifestation of the magico-religious power of the Midé (Hallowell, 1969, p. 55).

Hallowell (1969, p. 54) viewed this situated animism as a "radical departure from the framework of our thinking." Indeed, he argued that Berens River Ojibway even experienced stones as capable of much more than self-movement, offering the following anecdote as evidence.

> A white trader, digging in his potato patch, unearthed a large stone similar to the one just referred to [as moving during the Midewiwin ceremony]. He sent for John Duck, an Indian who was the leader of the *wábano*, a contemporary ceremony that is held in a structure like that used for the Midewiwin. The trader called his attention to the stone, saying that it must belong to his pavilion. John Duck did not seem pleased at this. He bent down and spoke to the boulder in a low voice, inquiring whether it had ever been in his pavilion. According to John the stone replied in the negative. (Hallowell, 1969, p. 56.)

Hallowell (1969, p. 56) argues that "[s]peaking to a stone dramatizes the depth of the categorical difference in cognitive orientation between the Ojibwa and ourselves. […] In the anecdote describing John Duck's behavior, […] his use of speech as a mode of

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communication raises the animate status of the boulder to the level of social interaction common to human beings."

In laying out the problem space to be addressed in this paper, I want to highlight two aspects of Hallowell's discussion. The first is his emphasis on the radical difference between "our" cognitive framework and that of the Berens River Ojibway. Hallowell (1969, p. 51) characterises this as a difference in "metaphysics of being." In his view, the Berens River Ojibway structure the intelligibility of their experience within a metaphysical worldview which is dramatically different from "ours." Each side has its own distinct "unified cognitive outlook" (Hallowell, 1969, p. 54). Hallowell (1969, p. 78) furthermore argues that the Berens River Ojibway live and act within a single "psychological field." His emphases on cognition, psychology, and metaphysics together suggest that what Hallowell (1969, p. 50) calls "ethno-metaphysics" is the study of unified and discrete conceptual schemes or mental worlds.

The second aspect of Hallowell's discussion which I would like to highlight appears to immediately place this comparative methodology into doubt. It points to a blind spot in Hallowell's analysis, one exemplified above all by his phrase: "In the anecdote describing John Duck's behavior […]." Hallowell neglects the fact that the anecdote does more than describe John Duck's behaviour. It also describes the behaviour of the white trader. And the trader's behaviour hardly suggests that he views John Duck as inhabiting a mental world radically different from his own. Indeed, the trader seems to accept the fact of Duck's situated animism, and, like any good neighbour, he takes action to reunite Duck with what he presumes to be Duck's personal belonging. At the level of behaviour, then, the anecdote shows scarce evidence for an insurmountable alterity between Duck and the trader. This is not to say that there is no important difference in their respective worldviews. It is rather to suggest that such conceptual or metaphysical differences may prove secondary when one's main concern is to establish and maintain good neighbourly relations, to get along with one another in a common environment.

In this paper, I will explore the prospects for what I will call *epistemic neighbourliness* in the context of the northern field sciences. It must be emphasised right from the start that the prospects are not good. But there is a difference between "not good" and "hopelessly impossible," and it is on this thin distinction that I will balance the weight of my argument. I wish to make plausible the idea that radical conceptual alterity need not necessarily poison the prospects for cross-cultural scientific collaboration. Objective scientific knowledge may be successfully co-produced in contexts of radical conceptual difference, that is, in contexts of conceptual incommensurability.[1] I suggest that whether or not this becomes possible depends, in significant part, on epistemic neighbourliness. The word 'neighbour' derives from the Old English *nēahgebūr*, *nēah* meaning "near" and *gebūr* meaning "farmer" or "inhabitant." An inhabitant is one who *dwells in* rather than merely *occupies* a place (L. *inhabitare, in-* "in" + *habitare* "dwell"). The concept of epistemic neighbourliness is thus meant to denote a relation between persons dwelling near to one another, a relation which is constitutive of their shared knowledge of a common place.

The anthropologist Tim Ingold uses the concept of a "dwelling perspective" to describe the ways in which field anthropologists perceive their research environment. According to Ingold, this perspective "allows the fieldworker and local people to inhabit a common ground of experience, even though they each may bring to bear a radically different conceptual frame to the task of its interpretation" (Ingold, 2000, p. 167). This common ground of experience, when it exists, may allow for successful epistemic collaboration even in cases of strong conceptual difference. However, such collaborations require not just the shared susceptibility of epistemic agents to a common environment, but also their mutual susceptibility to one another (cf. Barnes, 2001, p. 24). Hence, these collaborations are a suitable topic not only for ecology and psychology, but also for sociology. I thus employ epistemic neighbourliness as a sociological concept, one which emphasises the interpersonal dependencies of collaborative epistemic work, especially the ways in which those interdependencies serve both to stabilise and to co-ordinate the individual experiences of distinct agents dwelling in a common environment. Epistemic neighbourliness puts a sociological spin on Ingold's dwelling perspective, and extends its reach beyond the narrow scope of anthropological fieldwork. I will develop this concept through a discussion of several examples of biological field science from the Canadian North, and I will offer some remarks on the utility of epistemic neighbourliness for the study of field science in general. To begin, however, I must first secure the autonomy of field science as a distinct subject matter for social studies of scientific practice.

2. Decolonising the field sciences

The historical and sociological study of field science has been colonised by a specific and influential strand of laboratory studies. This colonisation process was not a surreptitious one. Advocates of these laboratory studies made it quite clear what they were doing: "Give me a laboratory and I will raise the world," declared one well-known champion. After asserting that most new sources of knowledge come from the lab, Bruno Latour concluded that the social and political power of science results from scientists' organised goal of "transforming society into a vast laboratory" (Latour, 1983, pp. 160, 167). Because epistemic power is constituted in laboratory practices, its extension throughout society necessarily depends on the extension of those practices beyond the walls of the laboratory.[2]

The imperialism of such laboratory studies has not left field studies unaffected. Indeed, the enthusiastic uptake of Latour's model has led Sergio Sismondo, in his survey of the state-of-the-art in STS, to conclude that "[a] substantial part of the work of field research is work to turn the field into a laboratory" (Sismondo, p. 118). Latour (1990, p. 54) has even suggested that the global expansion of European power in the modern era may be viewed as a "bigger scale experiment" which depended on the simultaneous extension of "micro-scale experiments" into colonised territories. For example, according to Latour (1990, pp. 53f., 76), Peron, the official zoologist of the 1802 Baudin expedition, used lab techniques and instruments to establish European power on the Tasmanian coast, with Aboriginal Tasmanians being eventually "wiped out" as a result.

Sismondo (2010, p. 118) is surely right that "insights gathered from laboratory studies also apply to field contexts." Yet this does not justify the stronger claim that field sites should be studied as extensions of the lab. Attempts by Latour and his followers to assimilate the dynamics of the field into their model of the laboratory threaten to erase the distinctiveness of scientific field

[1] On this point, I am in agreement with Helen Verran (Verran, 2002, p. 757, and 2013, p. 144). However, where she tries, tentatively and on the basis of her rare expertise, to *prescribe* ways for overcoming such difference, I wish only to *describe* the modest and often neglected ways in which it has *already* been overcome.

[2] Indeed, David Turnbull and Helen Verran observe that the laboratory accounts of both Latour and Joseph Rouse (1987) "have standardized forms of knowledge swarming unimpeded out of the laboratory. As they see it, resistance is useless" (Turnbull & Watson-Verran, 1995, p. 129). Latour (1987, p. 93) has furthermorewritten that the "layman is awed by the laboratory set-up, and righty so. […] [C]onfronted by laboratories we are simply and literally impressed. We are left without power." For general critiques of Latour and Rouse, see Kochan (2010, 2011) respectively.