Firsting in Research

01/18/2021 Max Liboiron

Declaring that a research project is the "first" to discover, do, or go somewhere is not only rarely correct, given the myriad local knowledges operating since time immemorial, but is also imperialist and colonial in nature, using language of priority, exploration, discovery, and uniqueness in a way that erases other people and forms of knowledge. Discard Studies offers frameworks about erasure, privatization, and dispossession that enable us to analyze the power relations of firstness and firsting in research.

In 2013, a scientific paper was published on a type of plastic pollution it had discovered called "plastiglomerate." The paper said it was reporting "the appearance of a new 'stone' formed through intermingling of melted plastic, beach sediment, basaltic lava fragments, and organic debris from Kamilo Beach on the island of Hawaii."

I remember turning to a colleague in my lab that had done undergraduate work in Hawaii. "You ever hear of these?"

"Yeah," he said. "We called them 'Anthropo-Igneous rock' when we'd see them. There are probably other names for the rock though– people on the beach always talked about it. Once, I remember folks from a Hawai'i environmental NGO arguing with a local beachcomber and artist who spent a lot of time on the beach–an old white guy, mid-60s, from Alaska. The beachcomber said it formed from plastic melting through bonfires on the beach. The scientists said that couldn't be possible and was likely from plastic melting on rocks due to heat. Also, there were always Hawai'ian fishers at the beach since currents made it a good fishing spot, so I'm sure they would have known about it and had a name before any of us."* (The scientific paper mirrors the beachcomber's knowledge).

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He shared a picture he took of one of the plastic-rock-things-of-many-names long before the paper came out.

Plastic-rock-thing, Kamilo Beach, Hawai'i island, 2011. Photo by Alex Zahara.

Historian Lauren Beck writes that "firsting is the process through which a scholar presents an act, circumstance, or phenomenon generated by man [*sic*], or accomplishment to have occurred for the first time" (2017: 109. Also see O'Brien 2010). When my students write that their study will be "the first to…", we have a chat. Why did they write that? Why is being first a mark of good research? I could be the first to study why the sky doesn't turn pink on Tuesdays. Someone was the first–and only!–scientist to study the effects of hypothermia on human subjects in the laboratory (he worked at a Nazi concentration camp and his subjects were prisoners). A guy named Columbus (erroneously) declared he was the first European to discover the Americas. These are extreme examples, but there's nothing except a vague *cultural* discourse about firstness in research that implies it is inherently good. When pressed to articulate the work that firsting does, my students reliably say, "It stakes out my research area" or "it marks my territory." Bingo. It's not a coincidence that these are metaphors about land.

In its history of colonialism, Wikipedia argues that, "Colonialism in the modern sense began with the "Age of Discovery" or "the Age of Exploration." It was a time of super-firsting. Researchers and our funders still use terms from that era in the same spirit as they were used in the 15th century, as an argument that places that Europeans had not already discovered, explored, and indeed claimed, were terra nullius, "nobody's thing." Indeed,

there's been a rise of research grant opportunities, publications and organizations with "frontier" in the title of late. Of course, there was nothing discovered during the Age of Discovery that was not already intimately familiar to the locals. As a case in point, when I began looking for the name for this phenomenon, I came across Dr. Jean O'Brien's work (White Earth Ojibwe), who wrote a book called *Firsting and Lasting: Writing Indians Out of Existence in New England* (2010) where she coined the term "firsting" to describe the act of settlers reinventing history to make themselves first to a place or activity as a way to make themselves belong by erasing prior Indigenous belonging. O'Brien's work starts in the 1820s, though it was just as likely happening earlier and just as likely was observed and theorised by locals at the time. Firsting is old news.

Discard studies is a theoretical framework about techniques and systems of valuation and devaluation that allow some things to flourish by discarding, erasing, and dispossessing others. It's a good framework for thinking about the imperialistic and colonial roots and routes of firsting in research.

Colonialism in everyday research

Anthropologist Zoe Todd recounts the time she went,

> *to see the great [Bruno] Latour discuss his latest work in February 2013, as part of the University of Edinburgh's Gifford Lectures on Natural Theology. I was giddy with excitement: a talk by the Great Latour, live and in colour! . . .*
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> *One of the issues he discussed in his lecture on Natural Religion was the climate as a matter of 'common cosmopolitical concern'. Having just returned from a year of research in the Inuvialuit Settlement Region in Canada's Western Arctic, I was intrigued. Funny, I thought, this sounds an awful lot like the little bit of Inuit cosmological thought and legal orders that I have been taught by Inuit colleagues, friends and teachers. . . .*
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> *I waited through the whole talk, to hear the Great Latour credit Indigenous thinkers for their millennia of engagement with sentient environments, with cosmologies that enmesh people into complex relationships between themselves and all relations, and with climates and atmospheres as important points of organization and action. I waited…. to hear a whisper of the lively and deep intellectual traditions borne out in Indigenous Studies departments, community halls, fish camps, classrooms, band offices and Friendship Centres across Turtle Island (North America) right now. It never came. (Todd 2016: 4-7)*

One of the problems with firsting is that it's nearly impossible that someone thought of something or found something first, because beachcombers and Indigenous people know things too, and their homes are other people's "field sites." Imagine someone walking into your kitchen and discovering your coffee cups. And then taking them away as specimens, naming them "caffeine delivery infrastructure (CDI)" in their forthcoming paper.

In the *Journal of Radical Librarianship* by Jane Anderson and Kimberly Christen discuss "decolonizing attribution" (2019). The paper is all about those guys who took those coffee cups/CDIs, then put them in museums with their own names on them.

They write, "In order to undo the ongoing realities of colonial projects, this necessarily requires making visible the embedded and often hidden practices of settler colonialism. Within settler colonialism, these practices are many and varied, as they mirror the logic of settler colonialism's well-worn habits and traditions of erasure, including orders, classifications, and modalities of organization that persist in marginalizing Indigenous peoples' voices and perspectives" and knowledge (Anderson Christen 2019, 115). Likewise, Ashley Glassburn Falzetti writes, "a willful insistence that the most recent conquest defines which people count, resulting in a refusal to acknowledge the histories [and knowledges] of

those who lived in a place before that moment" (2015: 138).There's an increasing realization across disciplines that colonialism is an organizing force that shapes societal systems from healthcare to education to economics to environmental conservation. And, of course, research (Smith 2013).

Colonialism, at its core, is about non-Indigenous access to Indigenous land, knowledge, and life for the goals of non-Indigenous, including when those goals are benevolent (Liboiron 2021). While much of the attention about colonialism in research has focused on methodologies, ethics and permitting, and representation in research, people like Anderson and Christen are extending that focus to attribution, authorship, and the way those techniques dovetail with firsting discourses to further colonial power. In the spirit of discard studies, they critique firsting as a technique in a wider system, rather than something that makes or breaks power at the level of individual choices.

Photo of scientific sample collection happening on a busy wharf. Scientists are surrounded by local knowers. Photo by Bojan Furst.

They write: "Firsting is a linguistic act that supports and makes possible the physical act of taking: it is, fundamentally, an act of settler-colonial attribution. Firsting names something in order to erase what was before it—eliding both a previous existence and continued presence. Firsting, then, is a mechanism that supports a colonial property paradigm of possession through taking, naming, and attributing" (2019: 121). The first report of X plastic

phenomenon, the first baseline study of plastic pollution in X body of water, the first to research the ingestion of plastics in X species are paired with "a complementary constructed language about the 'demise' of Indigenous peoples—the last Mohegan, the last Nipmuc, the last Wampanoag" (Anderson and Christen 2019: 120, also see Beck and O'Brien). The absence of other forms of knowing and knowers is implicit in firsting, but it makes the claim none-the-less: "If firsting and seconding can be associated with discovery and colonization, then lasting finds its match in extinction and effacement," the imagined historical conclusion of Indigenous peoples under successful settler colonialism, a massive regime of dislocation, dispossession, and erasure (Beck 2017: 109). The firstness of New World scientific orders creates "epistemological pathways for re-imagining territorial acquisition through the idea of the eradication of Native peoples from the landscape and from a presence in the modern political settler world order" (Anderson and Christen 2019, 120). To be the first to know is to erase all the knowers and types of knowledge that are already there, and then to *naturalize* those claims to know a place, to thus to belong there.

In *Reassembling Rubbish*, discard studies scholar Josh Lepawsky uses the term "worlding" to refer to practices that "make" certain worlds hold together and seem true (also see Spivak 1985, Tsing 2005, Haraway 2008, Roy 2011). In this case, firsting creates a world where some forms of knowledge and knowers are, indeed, first and only to know a thing or a place. This requires the erasure of other worlds, other knowledges and knowers in that place. To extend the concept of worlding, firsting is the making of colonial worlds, a technique that naturalizes the dispossession of Indigenous peoples from land.

But scientific methods *are* unique!

"But!", you may say, "local fish harvesters don't do baseline studies of microplastics less than 5mm in size! This really *is* the first *scientific* baseline study/neuston tow/ANOVA applied to this data!"

Yes, but remember that Western science is just that… Western (as in the heterogeneous culture, not the cardinal direction). It's a way of knowing that is part of a specific heritage of social norms, beliefs, ethical values, political systems, epistemologies, technologies, and legal structures and traditions heavily influenced by various forms of Christianity, Islam, and Judaism that have some origin in Ancient Greece and which heavily influenced societies in Europe and beyond (see Said 1979 and Smith 2013 for a good discussion on "Western" as a name for a diverse but coordinated set of cultural similarities). One premise of Western science is universalism, the belief that certain natural principles, phenomena, forces, and values are true and the same in all times and places. All Western science is based on the assumption that natural phenomena (and unnatural ones like plastic pollution) are universal. Things might vary a little from place to place, but not in a way that matters; localities, particulars, and context are just details to be sorted, and science is the tool that

does the sorting, allowing access to transcendental, universal truths. This is a Western belief.

The problem with universalism is that it is less a way to access timeless truth than it is an argument positioning a particular worldview as the *only* worldview, a particular way of knowing as *the* way of knowing. Universalism validates and valorizes some points of view and erases others, which makes it partial. And a bit rude. We've talked about the rudeness so far. Let's talk about the unique partiality of any way of knowing.

Historian of science Michelle Murphy has written about what she calls "regimes of imperceptibility" that are built into any system of knowing (also see Barad 2007). These are "the regular and sedimented contours of perception and imperception produced within a disciplinary or epistemological tradition," meaning the things that a way of knowing can and cannot see that are built into the way of knowing (2006: 24). For example, toxicology works at the scale of milliliters (mL), so doesn't notice toxic effects at the nanoscale. Indeed, the truism that "the danger in the dose" for poisons comes from this adage, and toxicological studies traditionally super dose organisms to clearly see the effects of a toxicant as part of experimental designs. That's not a problem, it's how toxicology works. But that means that toxicological effects of a class of industrial chemicals called endocrine disruptors were imperceptible–unable to be seen–by toxicology until endocrinologists, who work at much smaller scales, got involved (Myers et al 2009).

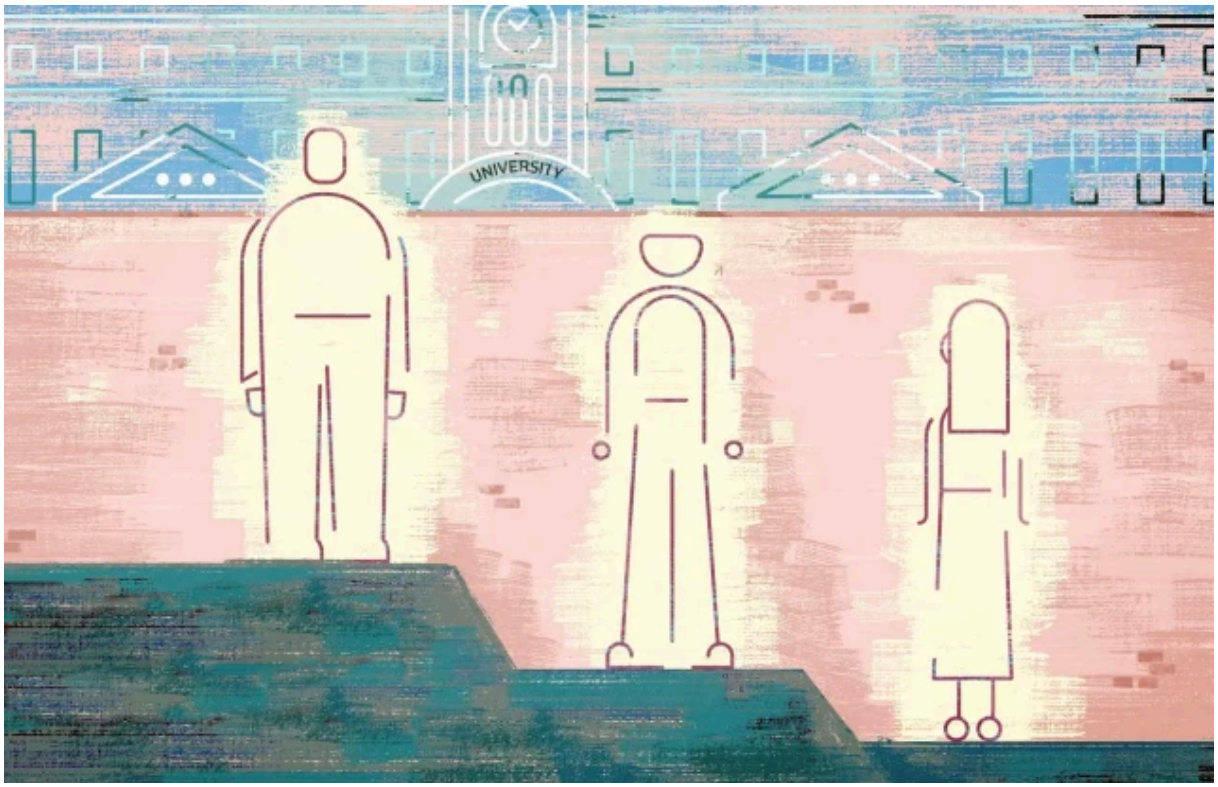
All tools for knowledge perceive some things and not others. They are always partial. Photo by Bojan Furst.

When a specific way of knowing is dominant as the *only* right way of knowing, we have problems. Murphy goes on: "Regimes of perceptibility are about more than just what we can see. As regimes, they were often understood by the historical actors employing them as natural or inevitable outcomes of social and technical arrangements [like scientific studies using scientific tools]. Produced by assemblages that are anchored in material culture, regimes of perceptibility establish what phenomena become perceptible, and thus what phenomena come into being for us, giving objects boundaries and imbuing them with qualities. Regimes of perceptibility populate our world with some objects and not others, and they allow certain actions to be performed on those objects" (Murphy 2006: 24). Firstness in research is about proudly proclaiming that a particular regime of imperceptibility is being used and erroneously implying that it is the only way of seeing a place.

Authorship, attribution, and property

Science historian Lorraine Daston calls Western science a form of "European self-portraiture," not only because it pushes Western epistemologies into places that have other ways of knowing, but also because it makes knowledge holders in its own image. The only valid knower was a Western scientist, rather than locals like fish harvesters or Indigenous peoples or beachcombers. That's one of the cultural elements of scientific universalism–it is the only way, and its knowers are the only legitimate knowers. You can recognize these knowers because they are attributed on samples and they are the authors on articles. Indeed, there are samples of plastiglomerate in museums and galleries with individual's names on them.

Anderson and Christian write, "what is under-explored . . . is authorship as both a site of colonial power and as one of settler colonialism's flexible legal devices for maintaining control and possession of knowledge upon Indigenous lands, even as those lands are subjected to projects of expropriation" (2019: 123). They urge readers to "pay closer attention to the property that research makes, who benefits from this property, and how colonial proprietary relations are normalized through the various lives that this property goes on to have in social memory, as well as in libraries and archives" (136). Whose names circulate about certain facts, and whose names are never recorded? How do those things–samples, papers, events searchable by Google–accrue value to those named people and not others? This is what they mean by property–the privatization of something that was not previously private so its value flows to a single source.



Structural inequity. Still from "Laboratory Life episode 1: Equity in Author Order," Couple3 Films (2021).

Not everyone can be an author, even if they are a knower: "Copyright ownership is potentially possible for anyone who is an author. The problem, however, is that not everyone can be an author. Like a real property holder, the author is a modern social political subject" (Anderson and Christen 2019: 122) created through the cultural circuits of Western science and its dominance. That beachcomber will likely never be an author, even if he knew about plastiglomerate before scientists, even if he spoke with or collaborated with scientists.

Firsting in research, then, is not about being first to a place, first to know something, first to discover something. It's a mark of hubris of not realizing every knowledge is partial, constructed within a regime of imperceptibility. It is a proclamation of power to make property in someone's home, to put your own name on otherwise shared or common knowledge. It's a proclamation of the privilege to not see others, cite others, or acknowledge others. Firsting is about the power to discard. To paraphrase Zoe Todd, "first" is just another word for colonialism.

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This post draws on arguments also made in:

Liboiron, M. (2020). Plastics in the Gut: A search for sand on a rocky shoreline upends colonial science. *Orion* (winter): 22-29.

*The story about graduate work and the beachcomber in Hawaii was fact-checked with the person who told the story as well as the beachcomber.

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