

Psychogeographic visualizations: or, what is it like to be a bat?

cultural geographies

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journals.sagepub.com/home/cgj**Ted Hiebert**  and **Jin-Kyu Jung**

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Abstract

What is it like to be a bat? is an artistic experiment that uses brainwave visualization as a way to speak about affective, cognitive, and imaginative geography – partly through the generation of real data sets and partly as metaphors for what data metrics can never really account for – that is, the incommensurability of experience. The project involves recruiting participants (mostly, but not exclusively, students) to imagine ‘what it is like to be a bat’ as a practice-based critique of Thomas Nagel’s 1974 rejection of the imagination as a useful tool for consciousness studies (Nagel’s essay used the bat as a metaphor, hence our choice of focus). Using electroencephalography brainwave sensors, we mapped and visualized participants’ brainwaves as they imagined, creating what we think of as ‘imagination portraits’. The project is then theorized for the ways it illuminates the limits of visualization and the imagination’s importance as a praxis for qualitative research. As a conceptual guide, we use a creative re-interpretation of psychogeography; however, in our work psychogeography is less about the psychological dimensions of real space and more about the mind’s spatiality, by which we mean the consideration of different forms of imagining as ‘places’ a mind can be taken to, reconfiguring psychogeography from the inside-out. In this way, we are interested in how a geographic understanding of the imagination might allow for conversations about different psychological landscapes of cognition.

Keywords

bats, electroencephalography, imagination, psychogeography, visualization

What is it like to be a bat?

An artist sits at a table, wearing an electroencephalography (EEG) headband (brainwave sensors connected to visualization and data capture software) that is busy measuring, recording, and visualizing the mind’s activities. The goal is to create an imaginary artwork – one framed by the challenge of imagining what it is like to be a bat. The EEG is less a representation of this imagining than a marker that something is happening, something we cannot really see (it is imaginary, after

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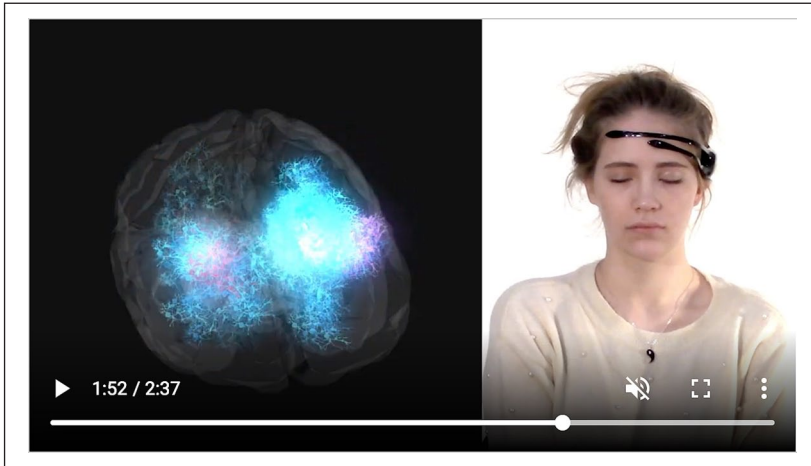


Figure 1. *What is it like to be a bat?* Participant visualization. 2018.

all) but that can nonetheless be marked for its inaccessibility – mapped and, insofar as it is mapped, representative of some kind of geography, inaccessible, or otherwise (see Figure 1). In this moment, the mind is literally outside itself, externalized as Marshall McLuhan and others promised, by the powers of an algorithmic imagination.¹ What we see is not what is happening (it is a visualization, after all) but a proxy for the fact that we cannot see what is happening. The visualization's intensity is striking. It tells us quite clearly that there is some kind of activity in play – some kind of imagining. Yet it tells us almost nothing about what that imagining is like.

In 1974, Thomas Nagel wrote the field-defining treatise on consciousness studies, asking the question, 'What it is like to be a bat?'. He concluded that there is *nothing* it is like – consciousness being entirely incommensurable to the question of analogy or knowledge. His concession (which, for him, was not a concession but a technical problem) was that we are unequipped to deal with such questions without resorting to the imagination.² For Nagel, the solution was to seek techniques of measurement that could bypass the imaginary, literally situating the imagination outside the study of consciousness. In Nagel's words:

At present we are completely unequipped to think about the subjective character of experience without relying on the imagination . . . This should be regarded as a challenge to form new concepts and devise a new method – an objective phenomenology not dependent on empathy or the imagination.³

What is strange (to us) about Nagel's assertion is its outright denial of the relationship between experience and the imagination. However, if we take the imagination as a real – perhaps even integral – part of conscious experience (which we do), then it seems counterintuitive to (re)conceptualize consciousness in a way that simply exempts it from this relationship. One might even suggest that the only way such a form of consciousness might be constructed is through an incredible act of imagination itself – an imaginary form of consciousness (conveniently) freed from the influence of the very imagination that created it. Out of sight, out of mind – a decidedly imaginary solution to the so-called problem of the imagination.

Our project – *What is it like to be a bat?* – recreates Nagel's meditation from the opposite position, asking the artists who participate to create an imaginary artwork in the form of an experience of what it is like to be a bat (see Figure. 2). It is a visualization experiment, an imaginary exercise

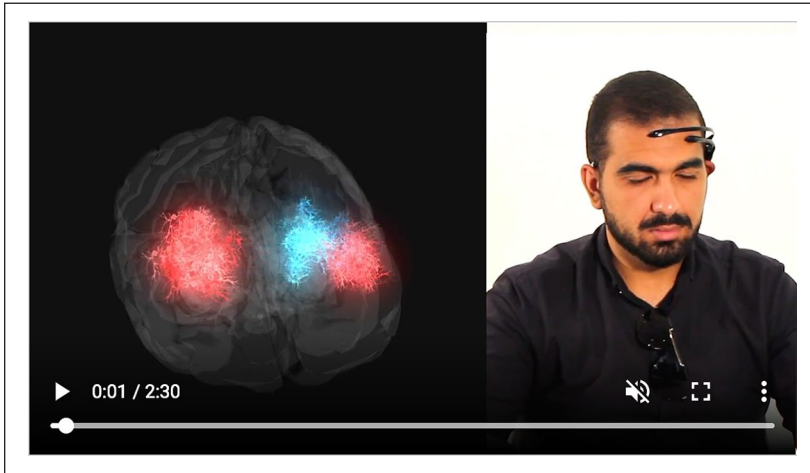


Figure 2. *What is it like to be a bat?* Participant visualization. 2018.



Figure 3. *What is it like to be a bat?* Event documentation. 2018.

that exists first and foremost in their own minds. Their acts of imagining are captured by EEG as well as on video. Participants also fill out a short questionnaire to help share what they were actually thinking about while the sensors were recording their thoughts: what came to mind when imagining themselves as bats and where they imaged themselves to be (if anywhere) during the time they spent imagining. This mixture of experience, imagination, and technical information provides a good excuse to talk about data – what they do and do not do, what we pretend or assume they can tell us, and what they can and actually cannot represent (see Figure 3). The data visualizations are interesting to look at, for instance, but they are not necessarily bat-like in any way. Yet, if we allow the imagination to be part of the method of analysis instead of simply an object of study, these visualizations can be thought of as catalysts for *our* imaginations of the *participants'*

imaginings of what it might be like to be a bat. Put more succinctly, the experiment is an excuse to imagine – both for the participant and for the observer – dynamic visualizations of minds engaged in a thought experiment that is itself a demonstration of how thought can be staged, repositioned, or mapped (in ways that are fully conscious of the limits and proximities of what might be counted as, in this case, ‘bat-like’).

Think of ‘bat’ as a place in the imagination to which a participant is invited to go – and the visualization as a map that invites us to imagine going there too. It’s a bit of a circuitous loop, and that’s partly the point. *What is it like to be a bat?* insists on what we call ‘imaginary data’.⁴ It defies Nagel’s limited accounting of useful data metrics and attempts to visualize what cannot be immediately or directly seen from a data-driven perspective – namely, the possibility of a visualization as a catalyst for imaginative possibility, proposing that the idea of imagining oneself somewhere (or as something) be taken a bit more literally. This is a psychogeographic perspective that understands that the process of pointing out where we are not (yet) is also a promise that we could be somewhere else.⁵ It might even provoke us to imagine how we might actually get there. It’s the premise of the very idea of a map but also the promise, in this case, of the psychogeographic imagination.

Method

What is it like to be a bat? is an artistic experiment that uses brainwave visualization as a way to speak about affective, cognitive, and imaginative geography, partly through the generation of real data sets and partly as metaphors for what data metrics can never really account for – that is, the incommensurability of experience, with all its dimensions of empathy and the imagination. Participants in the project were students in a series of undergraduate classes: an intermediate class on photography and digital art and an introductory seminar on interdisciplinary practice, co-taught by us, with an emphasis on intersections between contemporary art and geovisualization. The prompt for students was simple: imagine ‘what it is like to be a bat’, with an emphasis on the imagination’s ability to provide experiences not available to a material body or rational mind. That is, students were coached to approach this experientially, imagining themselves *being* a bat rather than simply thinking about what bats do. As background preparation, students were provided with an in-depth lecture on bat behavioral patterns by Sharlene Santana (a bat expert from the University of Washington), which helped some participants find entry points into the experiment.⁶ During the visualization sessions, the room was kept quiet, except for a background soundtrack of bat sounds, taken from the National Public Radio (NPR) public database of animal sounds.⁷ We provided this additional context to supplement the experiment’s main rhetorical point – that Nagel is both correct and incorrect in his assertion that the incommensurability of subjectivity means that there is *nothing* it is like to be a bat. Subjective experience, especially when imagined across species boundaries, provides no quantifiable point of reference from which to draw analogy, yet at the same time, subjective experience – positioned in this way beyond quantifiable data – admits to no necessary limits for what can be imagined. Participants imagined themselves, as best they could, experiencing the world as bats, providing performative documentation of their unique approaches and results – quantifiable as such or not – in narrative account, in video documentation, and in EEG data archives and visualization.

Following the visualization session, participants completed a questionnaire, asking them to describe their time imagining, including any substantive details about what they imagined and any information they could provide about the location where they spent their time imagining. Some students focused on specific aspects of Dr. Santana’s lecture, in particular the activities, behaviors, and habits of bats, imagining themselves flying, chasing insects, echo-locating, or hanging upside



Figure 4. *What is it like to be a bat?* Portraits of selected participants. 2018.

down. Others gravitated toward popular sources of bat narratives: Batman, Dracula, or the children's story (by Janell Cannon) *Stellaluna*. In terms of spatiality, participants imagined themselves to be in/around places such as forests, jungles, and caves – predominantly natural environments. For us, each 'portrait' provided a robust gathering of subjective moments – never enough to replace or fully represent the individual experience but enough to mark each instance as its own unique moment of engagement. Thus, while (per Nagel) there may be *nothing* it is like to be a bat (each 'portrait' represents a *human* imagining, after all), there are also *many things* that it is like – in this case, as many possibilities as there are participants imagining (see Figure 4). Some might be more



Figure 5. *What is it like to be a bat?* Event documentation. 2018.

(or less) convincing to a scientific observer, but the incommensurability of subjectivity means that no judgment can be made as to the effectiveness of any given imagination – each stands, in its own way, as *unimaginable* in exactly the same way as the experience of a bat itself.

Imagination and geovisualization

An artist sits at a table, wearing an EEG headband that is busy measuring, recording, and visualizing the mind's activities – in this case the impossible task of imagining what it is like to be a bat. If the experiment is done well, at the very least, the artist returns to the world having to remember what it is like to be human, the act of imagining having metaphorically taken them outside themselves in some mode of hyperreal encounter (see Figure 5). If a human can never be a bat, a human can at least imagine what it is like to be a bat – or to be a human imagining what it is like to be a human imagining what it is like to be a bat. At stake in this rhetorical game is a performative challenge to subjective positionality, one designed specifically to demonstrate a capacity to imagine outside categorical boundaries, or at least to confront such boundaries by foregrounding the performative dimensions of visualization. And to then return to being a human who has confronted the challenges of imagining themselves to be someone or something else. A psychogeographic experiment – or perhaps a first foray into the ecopoetics of geography.

Our question is simple: What is the geography of a world that is imagined differently, and how might we map the experience of imagining without ignoring its content or quality (subjective, empathic, imaginary, or otherwise)? The psychogeographic visualization acts here as a process of registering what cannot be seen directly but can be imagined – not a mapping of the imagination, but rather gesturing toward the act of imagining itself (see Figure 6). *What is it like to be a bat?* contributes to the practice of cultural geography by emphasizing that imagining is a form of practice – a 'doing' – and thus also a refusal of the usual relegation of the imaginary to the status of subjective conjecture. Instead, it is an insistence on the act of imagining as an essential anchor point of psychogeographic engagement.

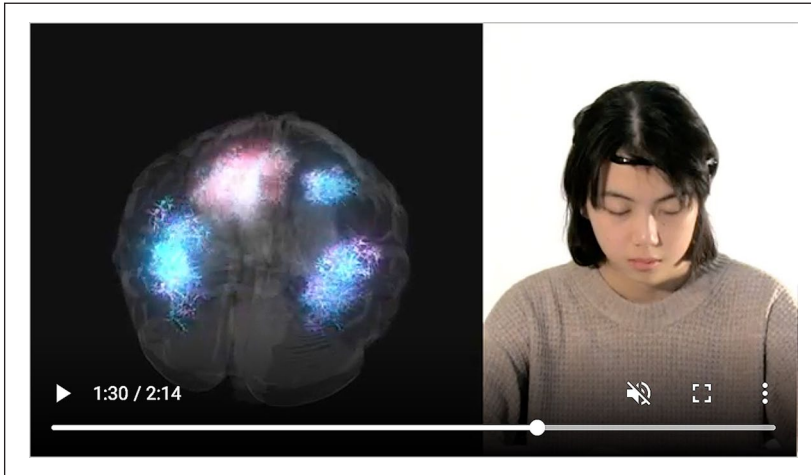


Figure 6. *What is it like to be a bat?* Participant visualization. 2018.

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Notes

1. McLuhan’s argument was that technology extends the body outside itself – in this case, the particular part of the body extended is the mind, made visually accessible from outside the body in which the activity of imagining is happening.
2. T.Nagel, ‘What Is It Like to Be a Bat?’ *The Philosophical Review*, LXXXIII(4), 1974, pp. 435–50.
3. Nagel, ‘What Is It Like to Be a Bat?’ p. 4.
4. J.K.Jung and T.Hiebert, ‘Imag(in)ing Everyday Geographies: A Case Study of Andrew Buckles’ *Why Wait?* Project’. *GeoJournal*, 80(1), 2015, pp. 1–18.
5. D.Wood, ‘Lynch Debord: About Two Psychogeographies’. *Cartographica*, 45(3), 2010, pp. 185–200.
6. For more on Santana’s work, see, <<https://www.biology.washington.edu/news/news/1556813700/bats-evolved-diverse-skull-shapes-due-echolocation-diet>>
7. National Public Radio (NPR), ‘Bat Sounds’, <<http://apps.npr.org/bats/>>

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