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Aesthetics and imagining the octopus's mind

Commentary on [Mather](#) on *Octopus Mind*

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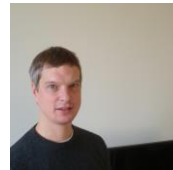
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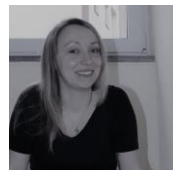
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Abstract: Several commentators on Mather's target article discuss the challenges of finding adequate cognitive methods and concepts for accessing the mind and experience of octopuses. Building on Godfrey-Smith's commentary, we propose aesthetics as a way. The arts provide means to perform what Godfrey-Smith calls an "imaginative leap" to access the experience of octopuses, especially *mimesis*. We are trying to do this in our current project [Okto-Lab. Laboratory for Octopus Aesthetics](#).

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Mather (2019) argues that it is difficult to imagine — hence, know — other minds, and that this challenge is even more complicated in the case of octopuses because they lack a nervous system that is centralized, as in vertebrates. Mather deduces the existence of minds in octopuses from what is known about octopus behaviour and their interactions with their environment, drawing on Jakob von Uexkuell’s concept of *Umwelt* and *Wirkwelt*. Several commentators raise conceptual problems (the concept of mind is too anthropocentric to do justice to octopuses) or methodological limitations (Mather’s account is too speculative and not rigorous enough scientifically). **Schnell & Vallortigara** (2019) find “mind” an “ill-defined concept” from folk psychology and call for a more rigorous, measurable concept. **Amodio** (2019) argues for a more agnostic and parsimonious approach. **Aitken** (2019) asks “Are our ideas of octopus life too anthropomorphic to help?” and responds by expanding further on the differences between octopus and human ecologies. For **Gutfreund** (2019), attributing a mind to animals is anthropomorphic and unscientific. **Porcher** (2019) contemplates the limited capacity of the human mind to access other realities. Underlying all of this is concern about how to access and understand the subjective experience of another being.

As we are not trained in the hard sciences, we do not intend to address the scientific side of this debate. Instead, we want to propose that aesthetics and the arts can may be able to help us understand the mind of the octopus. In our project *Okto-Lab. Laboratory for Octopus Aesthetics* (www.okto-lab.org), we are collaborating with artists and scientists to develop an exhibition on octopuses as agents, conscious and mindful of others. We take our cue from Peter Godfrey-Smith’s (2016) proposal in *Other Minds* that the octopus represents an alternative route to the evolution of consciousness, as well as the current popularity of the octopus as an other self “looking back at us” (see, for example, Montgomery 2016). Jennifer Mather has been central in exploring the scientific side of these challenges through her work on octopus personality (Mather & Anderson, 1993), consciousness (Mather 2008), playfulness (Mather & Anderson, 1999), and mind (Mather 2019). As our exhibitions are still in their developing phase, we cannot yet present definitive results here.¹ However, we will suggest some ways to study mind and mindfulness in octopuses and how the mind of octopuses might be framed in aesthetic terms.

Godfrey-Smith (2019) pushes Mather’s proposal further by trying to put himself in the place of an octopus so as to tap into the octopus’s experience through what he aptly calls an “imaginative leap,” rightly stressing that this is “not doing science, but ... can be guided by science.” Such exercises in imagination are the sphere of art. According to the philosopher Adorno (1971), a central feature of artistic production is *mimesis*, an ability to intuit an object by sensory, emotional and imaginative means. This involves sensory and emotional stirrings in the experiential relationship with an object, sensing its inherent, intangible qualities through empathy (Schmid Noerr 1990, pp. 147 & 151; Nho 2001, pp. 75-76). This subjective dimension is then expressed by artists as artwork. It becomes accessible to others through engagement with the artwork.

Comparing drawings of a bird of paradise by the botanist Johann Faber (1574–1629) and by Rembrandt, the art historian David Freedberg (1991) writes:

¹ The first exhibition opens on December 13, 2019, in the Plimsoll Gallery of the University of Tasmania’s Art School in Hobart, Australia, and the second will open on May 7, 2020, in the GLASMOOG Gallery of the Academy of Media Arts Cologne, Germany.

“In each case [of the drawings] the animal is presented in all its parts, ready for study, analysis, description, and classification. Yet Rembrandt’s own drawing, taken from a dead specimen kept in a drawer in his *kunstkamer*, makes it look as if it were alive enough to fly off the page – something the other beast could never do, despite the presence of all the parts that enable flight. It is analytic (roughly), it is descriptive – but it is to Rembrandt that we turn, again and again, for the essence of the animal.” (p. 418)

The arts thus offer ways to perform Godfrey-Smith’s imaginative leap as well as to make this experience available to others. In *Okto-Lab*, the studio of Burton Nitta exemplifies this particularly well: [Altered Ways of Being](#) (2019) was designed to create a virtual and tactile reality that adapts our body to an octopus’s world, reframing the relation between mind and matter from an octopus perspective. The artist duo Hörner/Antfinger portrays the pre-structured encounter with the octopus as an archetypical exhibit in an aquarium.

The way octopuses operate in their environment can be framed in the wider sense of aesthetics as a form of perception in the world as well as in the narrower, “artistic” sense. This pertains to their capacity to change their color patterns, skin texture and external form. That octopuses rely so centrally on this capacity to camouflage themselves to confuse both enemies and prey makes many of their engagements with their environment intrinsically aesthetic acts; the mimic octopus (*Thaumoctopus mimicus*) is of course a prime example of a species that makes extensive use of this. At the same time, however, this “complex appearance system”, as Mather terms it, creates opportunities for a form of aesthetic (self-)expression. This expressive quality becomes articulated, for example, when Godfrey-Smith renders the shifting appearance of a (possibly sleeping) octopus as a symphony in his book *Other Minds* (Godfrey-Smith 2016, pp. 134-135). Mather describes a similar aesthetic act when cephalopods “extend one arm or a tentacle, retract the chromatophores at the tip so it becomes white, and ‘wiggle’ it as a lure for attracting curious mobile prey.” The curiosity of octopuses in exploring objects by touch is another highly aesthetic way of engaging with their environment.

The mind of the octopus is highly developed aesthetically; their subjectivity and experience can accordingly be understood in aesthetic terms as well. Approaching the octopus mind and its relation with its environment in aesthetic terms can also help us understand the complex coordination processes of the octopus’s body. In [One Mimic Octopus in an Abstract Painting](#), Madison Bycroft explores the mimetic capacity of the species through humans mimicking octopus mimicry

Conclusions. We think the arts can complement the sciences in exploring octopuses as biological organisms and other minds — not by adjusting the experience of octopuses to a human perspective but by moving the human closer to the octopus so as to enter the octopus’s perspective. In *Okto-Lab*, a collaborative process brings together artists and scientists so as to “get inside” an octopus’s world. We hope to contribute new insights into the mindfulness of octopuses that emphasise, rather than neglect, their specific subjectivity and difference.

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