

Seeing and Sensing

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Who are *we* that do not *see* in the dark? Notably, insufficient light for human vision does not necessarily mean darkness for all non-humans. If darkness is a species-dependant condition¹, then non-humans might be able to “see” where we cannot. And if light is also a precondition for photography (as its etymology implies), then shouldn’t non-human seeing be of interest to writers on photography? With rare exceptions, this is not the case. Until recently, the non-human revealed in and by photography has been nature, machine, automatism, or one of their many ontological stand-ins. Photography scholarship is rife with such rhetorical stand-ins which, to this day, form the backbone of its theory and philosophy. A notable exception to the above state-of-affairs is the notion of “the operative” in imagery, which need not be photographic or contain images at all, a point which recent commentators fail to notice or note. Another important exception is *Nonhuman Photography*², Joanna Zylińska’s future-facing philosophy, informed by past and present technologies. Conversely, the proposed article begins with humbler notions of the non-human stemming from the aptitudes and behaviours of members of the animal kingdom like bats and dolphins. These are problematized, developed and pitted against the promises and perils of emergent technologies – most notably space archaeology and autonomous transportation.

Rather surprisingly, in attempting to explicate an all-too-murky association between human vision and photography in the main, several analytic philosophers have expressed a mild interest in the sensory aptitudes of bats (albeit only in passing).³ In so doing, some have also taken their cue from Richard Dawkins, an evolutionary biologist, who raised the possibility that bats might have visual experiences qualitatively like our own.⁴ Bats’ visual experiences, however, are further removed than those caused by vision as they are augmented by perceptual systems which can do without light altogether, owing to their ability to activate sound: to emit sound waves in ultrasonic frequencies and have them bounce off solid objects. Bats’ brains are designed to correlate the outgoing impulses with their subsequent echoes, and the information thus acquired enables them to make precise discriminations of distance, size, shape, motion and texture of objects in their immediate surroundings. These are discriminations comparable to those humans make by vision.

Indeed, “what is it like to be a bat?”, asked philosopher Thomas Nagel, explicating the difficult nature of the notorious “mind-body problem”, which occupies philosophers of mind to this day.⁵ Crucially, what kind of experience is afforded by echo-acoustic object recognition (or simply echolocation, its shorter and more popular term), which bats practice? Is it closer to that of standard vision or rather more like audition? If functional interchangeability of sensory aptitudes is within the realm of possibility for other sentient beings which humans routinely study for the sake of understanding their own neurology (and bats feature very prominently in brain research!), then considering the interchangeability of sensory aptitudes within human and humanly designed systems is a *sine qua non*. This proposition ought to make clear that scholarship on photography is now duty-bound to reformulate the reciprocal triangular relationship between sensing (in its myriad forms), visuality and knowledge.

¹ Reza Tavakol, "Thinking Dark Anew," *The Journal of Natural and Social Philosophy* 18, no. 2 (2022).

² Joanna Zylińska, *Nonhuman Photography* (Cambridge, MA: The MIT Press, 2017).

³ Gregory Currie, *Image and Mind: Film, Philosophy and Cognitive Science* (Cambridge UK: Cambridge Univ. Press, 1995); Berys Gaut, "Opaque Pictures," *Revue Internationale de Philosophie* 62 (2008).

⁴ Richard Dawkins, *The Blind Watchmaker: Why the Evidence of Evolution Reveals a World without Design* (New York: W. W. Norton & Company, 1986).

⁵ Thomas Nagel, "What Is It Like to Be a Bat?," *The Philosophical Review* 83, no. 4 (1974).

As with dolphins and bats, so too with human technologies that utilize active sensing (whether by mechanical or electromagnetic forms): seeing becomes augmentable. Such augmentation is a long way away from the “seeing-through-photographs” debated within analytic philosophies of photography.⁶ As conceptually useful as this thesis may have been, it remained committed to two conditions which are by now outdated. Firstly, to light which is always required for seeing through photographs (even for those rare photographic examples captured by other means) and secondly to humans doing the seeing. However, if we accept that photography today need not involve photo (or *phos*, light in Greek) at all, and that non-human agents and actants might nowadays also be doing some seeing-through, then Friedrich Kittler’s pronouncement that “sense and the senses become mere glitter”⁷ no longer pertains only to media outputs (as in his context) but also to media inputs. Consequently, we might prefer to accept philosophical accounts of “seeing-through-photography” as opposed to “seeing-through-photographs”. The functions of the latter are in any case different for humans and non-humans. We might even consider “cross-species photographic seeing” as a more accurate description.

The latter description of seeing is commensurate with several contemporary technologies, most blatantly Waymo’s “Driver”. Waymo is a prominent transportation company (a subsidiary of Alphabet) providing autonomous ride-hailing services in Phoenix and San Francisco. The Driver is Waymo’s autonomous driving technology (which can operate on various vehicle platforms) and is trademarked “The World’s Most Experienced Driver” owing to “20+ million miles of real world driving and 10+ billion miles in simulation.” This arguably equals “hundreds of years of human driving experience which benefits every vehicle in our fleet”.⁸ Note that the latter statement doesn’t imply that every vehicle in Waymo’s fleet has its own driver (as is the case with humanly driven vehicles). Rather, every driven vehicle might have its own functional states (changing in accordance with requested trajectories and road conditions etc.) but all driven vehicles have one and the same Driver. Indeed, contemporary systems merging vision with other sensor inputs and capable of active sensing on demand or desire are far-less removed from philosophy than we may be tempted to think. With active sensing programmed eavesdropping now hardwired into transportation systems, on surface and in outer space, our seeing, and indeed or “photographic seeing” increasingly resemble scenarios existing in zoology, or others vividly speculated in science fiction.

⁶ Kendall L. Walton, “Transparent Pictures: On the Nature of Photographic Realism,” *Critical Inquiry* 11, no. 2 (1984).

⁷ Friedrich A. Kittler, *Literature, Media, Information Systems: Essays* (London: Routledge, 2012), 32.

⁸ YooJung Ahn, “Designing the Waymo Driver,” (Waymo, 2020).

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