



LIVING LEXICON  
FOR THE ENVIRONMENTAL HUMANITIES

## Connectivity

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There's an acorn on my doorstep but not an oak tree in sight.

Easily sherlocked, this one. The telegraph cable running past the house and over the yew tree. Fur-tinged memories of skyward skimming and angular stares. The sunlight no longer clearing the gable and warming my toes. And the leaves beginning to turn. It's time, again, for squirrelling away.

The eastern gray squirrel is a familiar sight from my window. These arboreal rodents do well in English landscapes, urban and rural. In agricultural spaces they traverse between woodlands through hedgerows, along fences, and take their risks with mechanized traffic. In cities their sciurine suppleness makes for new modes of connection. Unthinkable leaps between rooftops become commonplace. And everywhere on this island, they run on the skynet of cables we humans suspend above the roads.

Ecologies depend on connectivity; and where it is compromised, ecologies unravel. Habitat fragmentation has become a familiar symptom and underlying cause in contemporary diagnoses of ecological degradation.<sup>1</sup> Simplified cultures of concrete and corn divide up the green and leave multispecies ecological communities isolated and vulnerable. But new connections are also being made in response: some with a hybrid human hand and others with more of a nonhuman provenance. Some new connections are championed as modes of management more suited to the Anthropocene than the nature-reserve fences of modernity: woodland corridors, toad tunnels, and squirrel rope bridges for the right type (red squirrels in the United Kingdom) capture the popular imagination. But not all connectivities are welcomed: “nonnative invasive” species

1. Primack, *Essentials of Conservation Biology*.

that make their own connections, such as the eastern grays in England, become targets for discipline, expulsion, and death.<sup>2</sup>

Connectivity is a place-holder that seeks to capture these multiple forms of multi-species mobility.<sup>3</sup> It is normatively charged, but ambiguously so: largely seen as a positive value to which ecological management should explicitly strive, but with some hefty caveats. Part of the ambiguity comes from the multiple ways in which connectivity is theoretically focused within the academic fields of conservation biology and landscape ecology.<sup>4</sup> Drawing on the familiar scalar divisions between genes, species, and ecosystems that underlie the concept of biodiversity, connectivity has been understood as: a flow of genes, the movement of particular species, or the structural connections between habitats.<sup>5</sup> For the leaping gray squirrels, the focus can thus be: on the DNA they carry; on their ability to move, meet, and breed, and the landscape features that enable this movement (hedgerows and telegraph cables both); or on the structural connections between blocks of woodland or clumps of trees. For a species dubbed “invasive,” carrying the wrong DNA often leads to practices aiming at reducing, rather than promoting, connectivity. The management practices that result from these normative sciences thus remain a function of the scale of their analyses.

But the concept of connectivity also has another, alternative life in multispecies and broader environmental humanities musings, concerning the link between people and nature. Despite a great deal of theoretical work that has undermined and displaced binary notions of nature as separate to society, in much public and policy discourse the separation is alive and well. Or more accurately, alive and unwell: because this perceived separation is blamed for all manner of ills. An example: in the popular best seller *Last Child in the Woods*, author Richard Louv blames many human maladies on a “nature deficit disorder” in children who are disconnected from nature.<sup>6</sup> In response, policy pronouncements from (Western) governments are making explicit efforts to “re-connect people and nature.”<sup>7</sup> The simplistic logic at work seems to be predominantly spatial: put people and nature together, and the benefits will flow. Humans will be more healthy for the interaction. And they will care more about the natural world, which will facilitate effective environmental management.

2. The debate among conservation biologists around “nonnative species” and “invasive species” (not the same, but often elided) is becoming increasingly agitated in recent years. See, e.g., Davis et al., “Don’t Judge Species” and the responses.

3. Crooks and Sanjayan, *Connectivity Conservation*. See also discussion in Lorimer, *Wildlife in the Anthropocene*, 170–77.

4. For a good summary of the various definitions of connectivity in use in landscape ecology, see Forman, *Land Mosaics*; and for how conservation biology has developed and added to these definitions, see Lindenmayer and Fischer, *Habitat Fragmentation and Landscape Change*.

5. McNeely et al., *Conserving the World’s Biological Diversity*.

6. Louv, *Last Child in the Woods*.

7. A prime example comes from the United Kingdom, where the first government white paper on the environment in twenty years devoted one full chapter (of four substantive chapters in total) to “Re-connecting People and Nature.” See Her Majesty’s Government, *Natural Choice*, 44–57.

Fortunately, the environmental humanities have more to offer here. A possible first step, now familiar in this vein of work, is to reconceive connectivity in relational terms that do not rely on essentialist dualisms.<sup>8</sup> Connectivity becomes less a stable achievement between two different things (people and nature), and more of a process by which multispecies connections are made, unmade, and remade.<sup>9</sup> Connectivities form contingently. Attention thus turns to how these connections adhere: through diverse modes of human and more-than-human attunement and interspecies communication, and through enactments of similarity and difference, companionship and violence.<sup>10</sup> Indeed, not all connections are desirable, considered from the perspective of various parties; in England again, the eastern grays are unwelcome for some because they carry a viral companion that is fatal for familiar, culturally valued but locally endangered, red squirrels.

A second step thus follows: it considers the ethics that derive from connectivity reconceptualized in this way. Donna Haraway has famously written of the ways in which multispecies connections can facilitate an ethic grounded in the ability to *respond*—a response-ability or capacity that might guide contextual action, without being elevated to a universalized ethical principle. As Thom van Dooren and Deborah Bird Rose remind us, such a capacity might be “cultivated” through practice.<sup>11</sup> The pertinent question for squirrels thus concerns the space allowed for eastern grays to respond. The ethics of this version of connectivity are therefore less ambiguous but no less contextual than those considered earlier. And as such, there is more room for a critical reading of scientific understandings of connectivity that, for example, facilitate the castigation of particular species according to normative categorizations of invasion and nativity.

Of course, the mobilities of more-than-human lives (considered earlier), and the ways that humans connect in and with more-than-human worlds (considered above), are themselves connected. *Connectivity* considered as a multiple concept that incorporates these heterogeneous connections (spatial, functional, political, ethical) enables their interconnectivities to be recognized, analyzed, and addressed. And to facilitate response.

I’d been sitting on a park bench adjacent to Whitehall, the engine rooms of British government. As I stood up to leave, another eastern gray came to interrogate me. It leapt up and sat on hind legs atop the backrest, inches from my torso. We stood and

8. Hinchliffe provides a good summary of nondualistic approaches to nature in *Geographies of Nature*. See chapters 4 and 5. A similar set of logics can be applied to connectivity.

9. Various writings about/with Indigenous philosophies have particularly helped shape this response to dualistic thinking through foregrounding vital, embodied, and emplaced connectivities; see especially: Rose, *Reports from a Wild Country*; Weir, “Connectivity”; and Country et al., “Co-becoming Bawaka.”

10. On attunement, Despret’s concept of “embodied empathy” is useful to think with: “Responding Bodies.” For difference and companionship, see Haraway, *Companion Species Manifesto*. And on violence, see Yusoff, “Aesthetics of Loss.”

11. Van Dooren and Rose, “Lively Ethography,” 13. Van Dooren’s concept of alter-territorialities, relating “outside the logic of hospitality,” is another useful resource in this line of thinking; see “Unwelcome Crows.” As one reviewer noted, perhaps having abandoned dualistic notions of nature, we are (following Despret) “learning to ask the right questions.”

stared at each other; we locked angular gazes, perhaps uncomfortably in this place of nationally charged politics. And after a time, the squirrel left, four-claw bounding into nearby shrubbery. Another stranger, human this time, approached unbidden. “What was going on with you and that squirrel, mate? That was dead weird.” Not dead, I thought. Lively, responsive, and connected.

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