
Shorelines, Seashells, and Seeds: Feminist Epistemologies, Ecological Thinking, and Relational Ontologies

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I INTRODUCTION

Mapping fields is an act of humility and of boundary making. It requires what I refer to in this chapter, as “diffractive readings,” (Barad 2007, 30) which are about “heterogeneous history, not about originals” (Haraway 1997, 273). One such reading of the beginnings of the diffuse and diverse field of feminist epistemologies recognizes the moment when Canadian feminist epistemologist and philosopher Lorraine Code asked what she later called (1998, 173) an “outrageous question” in a piece entitled “Is the sex of the knower epistemologically significant?” (Code 1981). A similar line of questioning—the “exploration of feminist concerns and insights” and how they might be “brought to bear on epistemology, metaphysics, methodology, and philosophy of science”—was taken up a few years later in a classic collection of essays that sought to challenge “the philosophic fields that were purportedly completely immune to social influences?” (Harding and Hintikka 2003, xii). Since these instigating contributions, and across the past four decades, the field of feminist epistemologies has been called an “oxymoron” (Alcoff and Potter 1993, 1), “both a paradox and a necessity” (Longino 1993, 327), and “marginalized, if not invisible, in ‘mainstream’ epistemologies” (Rooney 2011, 3). More recently, Phyllis Rooney confirmed that feminist epistemology is still treated with “hostility and dismissal” in wider “epistemology ‘proper’” circles (Rooney 2011, 6). Yet in spite of this contested history, feminist epistemologies have made seminal contributions to theories and practices of knowledge making, to subjectivities, and to relational epistemologies, relational methodologies, and, more recently, relational ontologies.

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In this chapter, I argue with Rooney (2011, 14–15) that “the marginality of feminist epistemologies has also translated into a ‘metaepistemic advantage’ in that it affords specific insights into the limited understandings of epistemology.” Here, I highlight how in its earliest iterations, as laid out in Sandra Harding’s well-known trifold classification (feminist standpoint, feminist empiricism, or as postmodern/transitional epistemologies), theoretical, methodological, and epistemological relationalities were central. More recently, relational ontologies have become increasingly important in feminist epistemological work as more and more cross-disciplinary scholars engage with what it means to work within the “ontological turn” and address some of the performative, posthuman, and non-representational ramifications that are part of this “turn.” While this is a large field, I work with one key contributor to these debates: Canadian feminist philosopher and epistemologist Lorraine Code.

This chapter is mapped in the following way. First, I offer a brief sketch of feminist epistemologies, arguing that they provide key foundations for more recent epistemological approaches. As Heidi Grasswick (2011, xx), puts it: “Not only are feminist epistemologists mining the resources of these approaches for their own projects, but their insights are also contributing significantly to the development of these approaches themselves.” Second, I argue that Lorraine Code is an excellent example of such moves while she also exemplifies entanglements between ethics, epistemologies, and ontologies, or what Karen Barad has astutely named as “ethico-onto-epistemology” (Barad 2007, 185). Working with Code’s four-decade body of work (e.g., Code 1981, 1983, 1987, 1991, 1995, 2006, 2014) and her ecological thinking approach, I highlight how ecological thinking, as an epistemologically and ontologically relational approach, radically reconfigures knowledge making, subjectivity, and our epistemic responsibilities. Drawing on her metaphorical and literal ecological examples—from notions of “affecting and being affected” from Deleuzian ethology, Rachel Carson’s provocative insights on empty shells on shorelines, and seeds and socio-cultural roots—I demonstrate what it means to work with relational epistemologies and relational ontologies in knowledge making.

2 DIFFRACTIVE READINGS OF FEMINIST EPISTEMOLOGIES

It is important to say at the outset that my reading of, and writing about, all the approaches and authors mentioned in this chapter are guided by diffractive readings. This approach to reading embodies the relational approach I articulate in this chapter. To use Code’s words, I move away from “a top-down, aloof, and interchangeable spectator model” (Code 2006, 285) towards an intra-active, relational, engaged, and constantly unfolding approach to reading. As Barad notes,

Diffraction does not fix what is the object and what is the subject in advance, and so, unlike methods of reading one text or set of ideas against another where one serves as a fixed frame of reference, diffraction involves reading insights through

one another in ways that help illuminate differences as they emerge: how different differences get made, what gets excluded, and how those exclusions matter. (Barad 2007, 30)

To read diffractively is to read generously and “to read through, not against; it means reading texts intra-actively though one another, enacting new patterns of engagement” (Barad 2009, 14; see also Code 2006; Mauthner 2015).

My mapping of feminist epistemologies begins with Sandra Harding (1986, 1991), who set the tone for at least a quarter-century of writing on feminist methodologies and feminist epistemologies when she laid out what she called three “successor epistemologies”: feminist standpoint epistemologies, feminist empiricism, and transitional (postmodern) epistemologies. While these epistemological categories have since given way to a wider set of feminist epistemologies, I briefly review them below in order to illuminate the enduring relational concerns that were and still are, addressed by feminist researchers working within these traditions.

Feminist standpoint approaches, first introduced in the 1970s and 1980s (Harding 1986; Hartsock 1983, 2003; Hill Collins 1986, 2000; Rose 1983; Smith 1987), evidenced at least four relational concerns. First, drawing on or connecting with Donna Haraway’s (1988) concept of “situated knowledges,” such approaches posited that all knowledges and knowledge making processes are constituted by the relationality of the standpoints of both the researcher and the researched. Second, standpoint feminists claimed from the outset that women’s narratives or standpoints must also be located and analyzed within broader relations of ruling or social structures (Smith 1987, 1999). Third, feminist standpoint epistemology understands standpoint as a relational accomplishment (Hartsock 1998) that is constructed through “historically shared, group-based experiences” (Hill Collins 1997, 375). Finally, the work of Dorothy Smith (1989) and Hilary Rose (1983) explored how women’s responsibility for children and emotional and relational labor was epistemologically significant in that these responsibilities led to “the exclusion of women from the conceptualization of sociological or philosophical problems” (Harding 2008, 340).

A second strand of feminist epistemologies, *feminist empiricism*, is an approach that holds “that sexism and androcentrism are social biases correctable by stricter adherence to the existing methodological norms of scientific inquiry” (Harding 1986, 24). For many commentators, feminist empiricism has been characterized in at least three ways that highlight how relations and relationality are central to its investigations. First, it is *contextualist* in its view that all observation, “facts,” and “findings” are rooted in values, including political values (Rolin 2011). A second point is that “knowers” are not individuals, but communities, and more specifically, epistemic and epistemological communities (Campbell 1998; Longino 1990, 1993, 2002; Nelson 1990, 1993). Finally, feminist empiricism challenged enduring binaries, calling instead for relationalities between, for example, the context of discovery/context of justification distinction, the fact/value distinction, and the traditional distinction between cognitive and social values (Intemann 2010, 781).

The third long-standing feminist epistemological tradition, identified by Harding as *feminist postmodernism (or transitional epistemologies)* emerged through intersections between feminism and postmodernism. It called for articulations of a multitude of perspectives, none of which could claim objectivity or transcend into the “god-trick of seeing everything from nowhere” (Haraway 1991, 189). While postmodernism and poststructuralism invited complexity into feminist theories and epistemologies, it also introduced tensions within feminism; some argued that these approaches could weaken feminist collective and relational politics (e.g. Benhabib 1995). Over time, however, these concerns became less urgent as feminist theorists and epistemologists began to outline ways of combining relativism and realism, including what Code (1991, 251) called “mitigated relativism,” through versions of “soft,” “skeptical,” or “affirmative” postmodern positions (e.g. Rosenau 2002). Situated knowledges is a central concern in feminist postmodernist approaches—as it is in feminist standpoint approaches—but greater attention is given to discourses that shape women’s accounts and constitute their identities.

As Harding herself predicted, the three successor epistemologies have been surpassed by other epistemological and theoretical developments (Harding 1987, 1991, 1998). Code (2008a, 188) maintains, “It is not that the categories have been transcended, but that they are not as distinct as they once seemed to be.” Since the beginning of the millennium, several notable social theory “turns” have infused theories and practices of knowledge making, including the “material turn” (e.g. Alaimo and Hekman 2008; Barad 2003, 2007; Coole and Frost 2010; Hekman 2010), the “postconstructionist turn” (Lam 2015; Lykke 2010), and the “posthumanist turn” (Braidotti 2016a, b). These “turns” have all been accompanied by deepening attention to performativity, non-representational approaches to knowledge making (e.g. Barad 2007; Bell 2012; Law 2004), and relational ontologies (e.g. Barad 2007; Code 2006; Somers 2008; Tuana 2008, forthcoming). While there is currently a multiplicity of alternative approaches and much debate and disagreement within and between them, all of them build on or intersect with feminist epistemologies; these approaches include, for example, new materialist feminisms (Alaimo and Hekman 2008; Coole and Frost 2010), transcorporeal feminism (Alaimo 2008, 2010), viscous porosity (Tuana 2008, forthcoming), agential realism (Barad 2003, 2007), relational empiricism and “ecologies of emergence” (Verran 2001, 2002, 2013), decolonizing epistemologies (Kovach 2010; Tuhiwai Smith 2012), and ecological thinking (Code 2006, 2008a, b, 2015). While all of these approaches inform my thinking, my work has been guided mainly by Code for several reasons. Like many of the approaches mentioned above, ecological thinking is an approach to knowledge making that attends to entanglements of methodology, epistemology, ontology, ethics, and politics. Code’s work also maintains inheritances from feminist epistemologies with its focus on situated knowledges, the politics of knowledge making, relational dimensions of methodologies and epistemologies, “the politics of testimony” and “epistemic marginalization” (Code 2014, 10), and epistemic responsibilities.

As I detail below, ecological thinking radically reconfigures dominant conceptions of method and knowledge making as well as our understanding of researchers as epistemic subjects with epistemic responsibilities.

3 ECOLOGICAL THINKING

Code develops her concept of ecological thinking through a “scavenger approach to epistemic resources” (Code 2011, 218), drawing on and contributing to feminist epistemologies as well as naturalized epistemologies, social epistemologies, virtue epistemologies, epistemologies of ignorance, philosophical pragmatism and contextualism, and, more recently, postcolonial and anti-racist epistemologies. Notably, it is Code’s long-standing contributions to the field of naturalized epistemologies (1981, 1987, 1991, 1995, 1996, 2006) that led her to approach epistemologies as objects of investigation (see also Hacking 2002; Law 2004). Her ecological thinking approach is thus underpinned by a sustained discussion of historical epistemologies and her argument that most knowledge making is still governed by a hegemonic “instituted social imaginary” (Code 2006, 22) of knowledge making wherein researcher scientists are witnesses who let “the facts speak for themselves” (Law 2004, 120). As Code puts it, these are “spectator epistemologies” where the knower “stands as a shadow figure invisibly and indifferently apart from discrete objects of knowledge” and “[o]bjects remain inert in and unaffected by the knowing process” (Code 2006, 41). In Haraway’s highly cited words, this is “the view from above, from nowhere” (Haraway 1988, 589).

Yet in spite of this hegemonic instituted social imaginary of knowledge making, Code argues that many “instituting” imaginaries of knowledge making are continually emerging as forms of “radical social critique” (Code 2006, 32). One such instituting imaginary is ecological thinking, a “revised mode of engagement with knowledge, subjectivity, politics, ethics, science, citizenship, and agency that pervades and reconfigures theory and practice” (Code 2006, 5). Pulling together her decades of work in various epistemological traditions, ecological theories, and Deleuzian “ethology” (Deleuze 1988), Code maintains that ecological thinking reconfigures a wide series of relationships: epistemological, ontological, ethical, scientific, and political relationships, as well as those between and among living beings and between human and non-human subjects and worlds.

3.1 *Knowledge Making and Epistemic Responsibilities*

Ecological thinking, on my reading, embodies a non-representational and epistemologically and ontologically relational approach to knowledges and knowledge making. It is less about gathering data or information and more focused on engagement, intervention, and the making of just and cohabitable lives. Code argues that ecological thinking “carries with it a large measure of responsibility ... [in that] it could translate into wider issues of citizenship and politics”; it is “about imagining, crafting, articulating, [and] endeavouring to enact

principles of ideal cohabitation” (Code 2006, 24; emphasis added). This translates, in turn, to a focus on how specific epistemic practices can bring forth different knowledges, realities, social worlds, and effects. That is, we are not just making knowledges but we are “reconfiguring” or “articulating” worlds (Code 2006, 48; Rouse 2009, 2015), “material-semiotic realities” (Barad 2007; Haraway 1997), or “worldlings” (e.g., Ingold 2011, 2013; Stewart 2010; see also Heidegger 1971).

Ecological thinking challenges us to think very differently about our positioning as researchers. It underlines how researchers are responsive to and responsible for their participation in and accounting of unfolding worlds and relationally constituted knowledges. Broadly put, this shifts our roles from, on the one hand, data gathering, “collecting stories” (Code 2011, 217), and representing data, to, on the other hand, “intervening” in (Hacking 2002; Verran 2002, 2013) and “intra-acti[ing]” (Barad 2007) *with* data and with research subjects and their worlds. Here, knowledge making “is always an interpretive, engaged, contingent, fallible engagement” (Haraway 2000, 167) where we are “casting our lot with some ways of life and not others” (Haraway 1997, 36). This kind of engagement and commitment—where one puts their “subjectivity ... on the line, and [assumes] responsibility for what and how he/she claims to know” (Code 2006, 275) is part of Code’s forty-year (e.g. Code 1983, 1987, 1991, 2006, 2015) evolving approach to epistemic responsibilities.

Epistemic responsibility recognizes that knowledge making is an intervention that always has consequences. As Barad (2007, 37) writes, questions of accountability, responsibility, and realism are “not about representations of an independent reality but about the real consequences, interventions, creative possibilities, and responsibilities of intra-acting within and as part of the world.” Researchers work with a “politics of possibilities” (Barad 2007, 46) rather than with representations and we do so in specific sets of relations and conditions of possibilities. This leads to a reconfigured conception of objectivity: one that is rooted in reflexivity or in diffraction, which underscores epistemological and ontological relationality and accountability in knowledge making, with all its effects. It also reconfigures notions of objectivity. As Barad notes, “Objectivity is simultaneously an epistemological, ontological, and axiological issue, and questions of responsibility and accountability lie at the core of scientific practice” (Barad 2007, 37). In Code’s terms (2006, 219), researchers, as knowers, must “learn how to acknowledge and take responsibility for the implications and effects of situation, to recognize the impossibility of an innocent positioning, while striving to achieve a politically-epistemically responsible one.”

3.2 *Ecological Metaphors, Relational Epistemologies, Relational Ontologies*

Code’s choice of the descriptor “ecological” is provocative and radical. She admits that she did initially worry about its applicability: “The most delicate tasks in making such a model epistemologically workable are, first, that of

achieving an appropriate balance between literal and metaphorical readings of the governing concept—ecology—so as to benefit from ecological science without running aground on details of analogy/disanalogy with specific ecological events” (Code 1996, 13). Code is also clear that while ecology refers to practices, subjects, concepts, and objects of investigation, her main purpose is to “propose an analogy with the *ecological model of knowledge*” (Code 1996, 15; emphasis added). In this section of the chapter, I work with literal and metaphorical ecological images and examples (as Code does) to develop three strands of thought that widen and deepen what it means to work with an approach to knowledge making that entangles relational epistemologies and ontologies. These strands focus on how Code draws on the Deleuzian ethology of affecting and being affected as a way of thinking about knowledge making as deeply relational processes; the ontological relationality of all things; and the ontological notion that what something *is* depends on its wide socio-cultural nexus.

4 AFFECTING AND BEING AFFECTED

Code roots her work partly in Deleuzian ethology. As she puts it, ecological thinking is “animated, in part, by Gilles Deleuze’s conception of ethology, as the capacities for affecting and being affected that characterize each thing” (Deleuze 1988, 125–126; cited in Code 2006, 26). She argues that Deleuze extends ethology literally and metaphorically to characterize it as inquiry that studies “the compositions of relations or capacities between different things” and as “a matter of sociabilities and communities” (Deleuze 1988, 125–126). Ethology is about mapping relations between people and between people and their multilayered locations and habitats, always attending to “physicality, sociality, place, cultural institutions, materiality, corporeality” and “charting its effects, where neither ‘worlds,’ ‘beings,’ nor ‘relations’ can be presumed before the fact to be static, unchanging” (Code 2008b, 3).

This connection between ecology and ethology exemplifies a relational approach in that it explores processes of “affecting and being affected” in varied intra-active sites across time. This has implications for how we, as social scientists, approach methodological practices and matters. If relations are primary and co-constitutive, then knowledge merges in practice through relational processes and is embedded in specific processes. This also relates to sociology’s long-standing preoccupation with reflexivity, including epistemic reflexivity (e.g. Bourdieu 2004; Bourdieu and Wacquant 1993; for overviews, see Mauthner and Doucet 2003, 2008).

4.1 *From Reflexivity to Diffraction*

An ecological approach builds on these notions of epistemological reflexivity and extends them towards a concept that entangles epistemology and ontology: *diffraction*. The move beyond reflexivity is animated by the work of both Code and Barad, who build on Haraway’s conception of diffraction. Code

concur with Haraway (1997, 16) “that reflexivity as a critical practice ‘only displaces the same elsewhere, setting up worries about copy and original and the search for the authentic and really real.’” Diffraction, on the other hand, “is an optical metaphor for ‘the effort to make a difference in the world’” (Code 2006, 121; citing Haraway 1997, 16). This has many methodological implications. One is that while reflexivity is about how one positions oneself in data collection and analytic processes, these processes remain somewhat separate from the “already there” data that is collected. As Barad (2007, 157) notes: “Objects are not already there; they emerge through specific practices.” Diffraction, however, refers to how we are deeply entangled within the making of data. Moreover, while reflexivity tends to stop once the researcher’s location has been articulated, diffractive readings and analyses “rel[y] on the researcher’s ability to make matter intelligible in new ways and to imagine other possible realities presented in the data” (Taguchi 2012, 267). This entails a process of constantly working with intra-active differences, rather than assuming that we can capture or mirror data that is “out there” waiting to be found in a place where processes of affecting and being affected do not exist.

5 “TO UNDERSTAND THE SHORE, IT IS NOT ENOUGH... TO PICK UP AN EMPTY SHELL...”¹

In order to demonstrate ecological imaginaries in practice, Code develops several case studies in *Ecological Thinking* (2006) and in her subsequent work (e.g. Code 2008b, 2012, 2015). The most notable, and indeed very moving case, is about Rachel Carson. Bestselling and award-winning author of *The Sea Around Us* (1951) and the infamous *Silent Spring* (1962), which launched her as one of the founders of the American environmental movement that challenged pesticide companies and the use of DDT in crop spraying, Carson is presented by Code (2006, 38) “as exemplary for ecological knowing” and as a “pathbreaking practitioner of twentieth-century ecological thinking and practice” (Code 2006, 36; see also Code 2012, 2014).

From Carson’s book, *The Edge of the Sea*, Code borrows the following idea: “To understand the shore, it is not enough to catalogue its life” or “pick up an empty shell and say ‘this is a murex’ or ‘that is an angel wing’” (Carson 1955; cited in Lear 1977, 275; quoted in Code 2006, 50; emphasis added). Code uses the relation between an empty shell and the larger shoreline to make several points about how we come to know and classify objects, illustrating the complexity in naming, classifying, and constructing taxonomies and categories. She explains that “entities, organisms, and events do not fall naturally into categories and kinds”; rather, “classifications are multiply contestable” partly because what something *is* depends on “the habitats, patterns, or processes in which seemingly distinct organisms and entities interact” (Code 2006, 50). Through cross-disciplinary and creative leaps, Code (2006, 50) contends that these “issues translate, by analogy, into practices of classifying people, by race, gender, physical ability, age, and so on, with comparable tendencies to reify, solidify into stereotyped

identities.” She argues that instead of working to “achieve, create, or impose a certain order,” ecological thinking “maps it differently” (Code 2006, 50). This mapping “requires understanding how those specificities work together” and addressing “the explanatory power of an attentive concentration on local particulars [and] specificities” while also seeking to “generate responsible remappings across wider, heterogeneous epistemic terrains” (Code 2006, 50).

Ecological thinking also connects with a central tenet of relational ontologies: non-representationalism. Barad’s (2007, 55) work is helpful here in that she describes representationalism as “the view that the world is composed of individual entities with separately determinate properties.” An ontologically relational approach is non-representational because it focuses on how things are brought together and considers each part/object/subject and related practices as contingent on time, place, and whole-part relations.

5.1 “Intra-action” and “Nothing Comes Without Its World”

An ecological perspective reminds us that every entity exists multiply, and is intertwined and inradependent with other objects; an object is ontologically multiple and relational as it cannot be fully defined outside of its entanglement in any one particular habitat or “assemblage.” Put differently, what any object (be it a human, non-human or posthuman subject, a concept, a narrative, or “narrated identity” [Somers 1994]) *is*, what it can be, what it does, and what it becomes is constituted by and contingent on its fluid relations with other objects and its wider ecologies. In Haraway’s words: “nothing comes without its world” (Haraway 1997, 137; cited in de la Bellacasa 2012, 198). This means that we are never studying individual objects but, rather, relationships, which coheres with the oft-cited point in relational sociology that social realities are not static “things,” but “dynamic, continuous, and processual ... unfolding relations” (Emirbayer 1997, 281). As Bruce Curtis notes, this is a “sociology of relations and practices, rather than of essences and objects” (Curtis 2002, 43). Powell (2013, 190) concurs that it means treating “relations as constitutive of objects” while also holding to the view that we “take relations as our fundamental unit of observation.” Moreover, Powell (2013, 203) also adds, “If relations constitute all objects, then one can never know objects independently of the relations through which one encounters them.”

Feminist theories of subjectivity (Benhabib 1995; McNay 2003) and early feminist work on the ethics of care (Held 1993; Sevenhuijsen 1998; Tronto 1993, 1995) have long highlighted “relational subjectivities” and emphasized the interdependence of human relations. Yet the ecological approach espoused by Code goes much further in thinking about how subjects and objects of investigation are not only *inter-dependent*, but *intra-dependent* and intra-active. It focuses on what Barad calls “intra-action” or the “entanglement” of the various parts of our “objects of investigation.” Nancy Tuana (2008, 2001, 238–239) expresses this idea as “a world of complex phenomenon in dynamic relationality.” Powell (2013, 187) notes that it is “an epistemology that

contains no residual dualist elements and therefore treats all social phenomena, including individuals themselves, as constituted through relations.” An ecological approach is therefore also an ontological position on the relationality of being and becoming.

6 “FROM SEEDS TO INSECTS TO HUMAN BEINGS”²: SOCIOCULTURAL NEXUS AND RELATIONAL ONTOLOGIES

One further way that Code explicates relational ontologies and knowledge making is through her metaphor of seeds. As she puts it, this means “(s)tarting perhaps implausibly from seeds” and moving “toward dislodging the allegedly self-evident, if seldom articulated, belief that ‘a seed is a seed is a seed’” (Code 2008b, 4). Drawing on various ecologists, Code (2008b, 4; citing Lacey 2003, 91; her emphasis) argues that “what seeds ... and the plants that grow from them *are* is partly a function of the sociocultural nexus ... of which they are constituents.” She demonstrates how Rachel Carson made a similar point in her writing during her National Book Award acceptance speech for *The Sea Around Us* (1951) when she said: “it is impossible to understand man [sic] without understanding his environment and the forces that have molded him physically and environmentally” (Carson 1956; cited in Lear 1977, 278).

For Code, these forces that shape and mold are not determinant or causal; rather, they are constitutive of a multiplicity of possibilities for the coming-into-being of objects and they entail “multiple connections and reciprocal effects” (Code 2008b, 5). Literally and metaphorically, Code (drawing on Carson and other ecological writers) is referring to locatedness across a vast spectrum of existence—the planting and the making of “so small an entity as a seed or an insect; so large an entity as a human being or an elephant” (Code 2008b, 5). This exquisite point coheres with what Ian Hacking calls “all manner of constitutings” (2002, 4), which include “scientific objects,” “concepts, practices, and corresponding institutions,” as well as “things, classifications, ideas, kinds of people, [and] people” (Hacking 2002, 4–5). They are also connected with ontological questions that concern “the very possibility of the coming into being of some objects” (Hacking 2002, 2), including the coming into being of particular knowledges, narratives, and worlds.

6.1 Vitality and Processes of Becoming

Concerns with how various beings and objects emerge and grow in specific conditions of possibility resonates with the rich ecological approach of anthropologist Tim Ingold (2000, 345), who argues (through case studies of shells, stones, baskets, pottery, bricks, and watches, among other things) that objects, subjects, and human and non-human lives grow and evolve through “self-transformation over time of the system of relations within which an organism or artifact comes into being.” Also drawing on the work of Deleuze and

Guattari (2004, 451–452), Ingold (2012, 433) highlights “the variability of matter—its tensions and elasticities, lines of flow and resistances.” This connects, in turn with Code’s ecological thinking as well as new materialist approaches that suggest that “materiality is always something more than ‘mere’ matter: an excess, force, vitality, relationality, or difference that renders matter active, self-creative, productive, unpredictable” (Coole and Frost 2010, 9).

Methodological implications also arise from these points about vitality. For example, what most researchers call data is also a form of constantly flowing matter that must be followed, rather than captured or collected. Ingold writes: “Production, then, is a process of correspondence: not the imposition of pre-conceived form on raw material substance, but *the drawing out or bringing forth of potentials immanent in a world of becoming*” (Ingold 2012, 435; emphasis added).

6.2 *Relational Ontologies and Ontological Alterity*

If we are studying unfolding worlds, and if our concepts, methods, and problematics are constitutive, this calls for some clarification of our ontological underpinnings. The “ontological turn” has garnered massive attention in the past decade and there are many diverse approaches to ontological issues. My approach is rooted in the work of Code as well as indigenous scholars (e.g. Craft 2013; Simpson 2011, 2014; Watts 2013) and anthropologists (e.g. Blaser 2014; Ingold 2007, 2011, 2012, 2013; Strathern 2005; Verran 2001), who recognize ontological multiplicity, ontological alterity, and ontologies as “enactments of worlds” (Blaser 2010, 3). As Mario Blaser writes (2014, np), an onto-epistemological approach, while internally heterogeneous, points broadly to “ethnographic descriptions of the many-fold shapes of the otherwise, an injunction not to explain too much or try to actualize the possibilities immanent to others’ thoughts but rather to sustain them as possibilities; and, as a corollary, a politics that initially hinges upon the hope of making the otherwise visible so that it becomes viable as a real alternative.” If multiple worlds or wordlings are possible, then the researchers’ or ethnographers’ role is not to represent, but to contribute to bringing new stories, relationships, and worlds into being. Metaphorically, the researcher plays a role in these seeding, planting, and harvesting processes.

7 CONCLUSIONS

This chapter provides a brief sketch of feminist epistemologies, their early iterations, their contributions to relational epistemologies and methodologies, while also highlighting how they have sown the seeds for continuing feminist contributions to relational dimensions of knowledge making. These contributions have, in turn, led to more and more attention given to what it means to work with non-representationalism and ontological and epistemological relationality in knowledge making practices. While there is currently a great

multiplicity of such approaches, which build on or intersect with feminist epistemologies, this chapter engages, through diffractive readings, with some of the key contributions of Lorraine Code's four-decade trajectory of writing, and especially her recent work on ecological thinking. While Code's work has its roots in feminist epistemologies, it also draws on, contributes to, or intersects with a wide array of other epistemological traditions (naturalized epistemologies, social epistemologies, virtue epistemologies, epistemologies of ignorance, and, more recently, postcolonial, and anti-racist epistemologies, and indigenous epistemologies). I work with Code's metaphorical and literal ecological examples, demonstrating the value of Code's ecological thinking as an epistemologically and ontologically relational approach to knowledge making, subjectivity, and epistemic responsibilities (See also Doucet 2018, in press).

Ecological thinking is just one of many emergent approaches that are grappling with what it means to work with within the "ontological turn" and to address some of the performative, posthuman, relational, and non-representational ramifications that are part of this "turn." This chapter also articulates some of the methodological implications that arise from working with ecological thinking. I offer insights about epistemological and ontological relationality that resonate with, but also expand, current sociological methodological approaches and relational sociology. These include making shifts from reflexivity to diffraction and from interaction to intra-action; a focus on vitality and processes of becoming; and thinking through our ontological underpinnings, including what it means to work with ontological alterity and ontological multiplicities. I argue that Code's ecological thinking approach warrants more attention within relational sociology.

NOTES

1. This quote is from Rachel Carson's *The Edge of the Sea* (1955) cited in Lorraine Code (2006, 50).
2. This quote is from Code (2008b, 4).

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