

# Feminist Epistemologies and Ethics: Ecological Thinking, Situated Knowledges, Epistemic Responsibilities

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An ethical judgment is not a quantitative calculation at root but an acknowledgement of responsibility for a relationship. (Haraway, 2000: 147)

[R]esponsibility/accountability issues are ... to my mind, both epistemological and ethical. (Code, 1995: xiv)

## INTRODUCTION

Every story has many versions and origins. One version of the beginnings of feminist epistemologies, as a field of scholarly attention, was that it began with four seemingly simple, yet deeply provocative concerns that ignited decades of debate. The first arose when Canadian feminist philosopher Lorraine Code posed what she later called (1998: 73) an 'outrageous question' in her piece entitled, 'Is the sex of the knower epistemologically significant?' (Code, 1981). A couple of years later, Sandra Harding and Merrill Hintikka (1983) published a collection where all contributors reflected on how 'feminist concerns and insights' could be 'brought to bear on epistemology, metaphysics, methodology, and philosophy of science – the philosophic fields that were purportedly completely immune to social influences?' (Harding & Hintikka, 2003: xii). Then, in the late 1980s, Lorraine Code and Donna Haraway introduced two concepts that would come to play a central role in discussions of epistemologies and ethics: epistemic responsibility (Code, 1987) and 'situated knowledges' (Haraway, 1988).

These are some of the questions and concepts, in various iterations, that combined to generate a diverse and highly interdisciplinary field that connects feminist epistemologies, methodologies, and ethics. From its earliest days, many contributors to this field have sought to develop conceptual, epistemological, methodological, and ethical approaches to challenge the alleged value neutrality of investigation and researcher distance from its objects as well as the hegemony of dominant 'spectator epistemologies' premised on interchangeable, disembodied knowers and research practices that were 'abstract, 'generalized,' and disengaged' (Code, 1995: xi; see also Code, 1993, 1996, 2006).

While there was some consensus among feminist researchers about the need to critique and reconfigure mainstream scientific and positivist methodologies and epistemologies, throughout the 1990s questions remained as to the need for distinctly *feminist* approaches to issues of knowledge making. Questions abounded. 'Would a feminist epistemology simply reverse androcentric epistemology to a gynocentric epistemology?' (Duran, 1991: 14-15). 'What does feminism require of an epistemology?' Is there a need for 'a specifically feminist alternative to currently available epistemological frameworks' (Antony, 1993: 187)? Outside feminist circles, different concerns were raised. As Helen Longino (1997) pointed out, 'The idea of feminist epistemology [threw] some philosophers into near apoplexy.' (p. 19). More recently, Phyllis Rooney confirmed that feminist epistemology is still treated with 'hostility and dismissal' in wider 'epistemology "proper"" circles (Rooney, 2011: 6).

Questions about the specifically feminist character of feminist epistemologies have never been fully settled. This is partly because feminism is a highly diverse field that has become even more diverse with its growing attention to intersectionality and the need to think beyond gender (Hill Collins & Bilge, 2016; Siltanen & Doucet, 2017). Linda Alcoff and Elizabeth Potter (1993) hinted at this widening many years ago, arguing in the introduction to their seminal volume, Feminist Epistemologies, that 'feminist epistemology should not be taken as involving a commitment to gender as the primary axis of oppression, in any sense of "primary", or positing that gender is a theoretical variable separable from either axes of oppression and susceptible to a unique analysis' (pp. 3–4).

It is also the case that epistemology, as a field, is richly varied, with many of its own intersections with, for example, analytic and continental philosophy, as well as overlaps with other epistemological approaches, including pragmatism, naturalism, contextualism, social epistemology, virtue epistemology, and, more recently, postcolonial and indigenous epistemologies, among many others. Given this diverse terrain, I begin the chapter concurring with Heidi Grasswick (2011: xx), who argues: '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.' After forty years on this terrain, Code admits that she now takes a 'scavenger approach to epistemic resources' (Code, 2011: 218), as she draws on a wide and eclectic array of epistemological and philosophical resources.

To map the connections between feminist epistemologies and ethics, it is important to start by attending to what unites feminist researchers. Drawing on Code's scavenger metaphor, this chapter is underpinned by three key points that, in my view, guide all feminist epistemological work. First, I draw on the oftrepeated argument that '(f)eminism's most compelling epistemological insight lies in the connections it has made between knowledge and power' (Lennon & Whitford, 1994: 1); thus, a key epistemological question for feminist researchers is 'Whose knowledge are we talking about?' (Code, 2006: 21) as well as an enduring focus on knowing marginalized people. Second, I will argue in this chapter that, as noted above, feminist epistemological writing addresses epistemic responsibilities and situated knowledges. In this vein, Grasswick recently confirmed (2011: xvi, emphasis in original): 'Situated knowing is the single most influential concept to come out of feminist epistemology'. Finally, while 'epistemic responsibility' initially received a 'mixed reception' (Code, 1995: 3) when first introduced by Code, it has since become one of the most important concepts in discussions of knowledge making and ethics. Yet, what is critical to add here - and this point frames my chapter - is that meanings and practices of epistemic responsibilities, as well as situated knowledges, have

shifted across time. As I detail in this chapter, this has happened especially in light of evolving social theories and philosophical turns, which have shaped and reshaped the ways that we think about methods, methodologies, epistemologies, ontologies, and ethics, as well as the entanglements between all of these.

This chapter has five sections. First, I lay out my approach to reading key authors, drawing on Donna Haraway's (1997) concept of diffraction and Karen Barad's (2007) 'diffractive readings'. Second, I map out the geography of the field of feminist epistemologies as it unfolded in the 1980s and 1990s, working with Sandra Harding's well-known tripartite classification. I highlight the gradual dissolution of this typology while also identifying some of the enduring ethical issues that were charted by key writers working within and across these approaches. Third, I briefly highlight new mappings of feminist epistemologies as they have intersected with several key social and philosophical turns, and the implications resulting from entanglements of feminist epistemologies, ontologies, and ethics, or what Barad (2007: 185) calls 'ethico-onto-epistemologies'. Fourth, I focus on Lorraine Code's work, especially her recent work on ecological thinking, and on how this approach provides for reconfigured conceptions of knowledge making, subjectivity, and ethics. I highlight how these conceptions deepen and enrich intra-actions between epistemic responsibilities, situated knowledges, Finally, I highlight the methodological implications of working with Code's ecological thinking approach.

#### **DIFFRACTIVE READINGS**

As this is a chapter on ethics, I begin by highlighting the ethics of reading and writing. Here, I draw on what Karen Barad (2007) calls 'diffractive readings', a notion that builds, in turn, on Donna Haraway's concept of diffraction which is about 'heterogeneous history, not about originals' (1997: 273). Unlike reflexivity, whereby one positions oneself as connected to, but ultimately still separate from, one's data and object of investigation, diffraction refers to how we are deeply entangled with the making and remaking of knowledges and worlds. Diffractive reading entails a process of working with different 'politics of possibilities' (Barad, 2007: 46) rather than assuming that we can capture or mirror something that is 'out there', waiting to be found. 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. (2007: 30)

I thus conduct diffractive readings of the work of Code and others who have made seminal contributions to feminist epistemologies. In the case of Code, this has meant reading and re-reading her writing, and reviews and critiques of her writing, across forty years of her work (e.g. 1988, 1993, 1995, 1996, 2006, 2008, 2011, 2014) as a process of 'respectful, detailed, ethical engagements' (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, 2010: 243; see also Mauthner, 2015).

## FEMINIST EPISTEMOLOGIES AND ETHICS: THREE STRANDS ACROSS THREE DECADES

Sandra Harding (1986, 1991) set the tone for at least two decades of feminist methodologies and feminist epistemologies when she laid out what she called three 'successor epistemologies': feminist standpoint epistemologies, feminist empiricism, and transitional (postmodern) epistemologies. As discussed later in this chapter, these epistemological categories have since given way to other, more complex ways of understanding feminist epistemology. Nevertheless, I briefly review them below in order to illuminate the enduring ethical concerns that were, and are still, addressed by feminist researchers working within these traditions.

#### Feminist Standpoint

Feminist standpoint approaches were first introduced in the 1970s and 1980s, with Marxist, Hegelian, and second wave feminist roots (Harding, 1986; Hartsock, 1983, 2003; Hill Collins, 1986, 2000; Rose, 1983; Smith, 1987), and authors have argued that they can be viewed as theory, method, and epistemology (see overview in Hekman, 1997; Wylie, 2003). By many accounts, feminist standpoint approaches have been guided by two core propositions (Wylie, 2003). The first, related to 'situated knowledges', is that all knowledge and knowledge making processes are constituted by the standpoints of both the researcher and the researched. Moreover, standpoint epistemology has continually emphasized how women's lives are the 'places from which to start off knowledge projects' (Harding, 1991: 61). The second proposition details 'epistemic advantage', meaning that some standpoints, specifically the positionalities of marginalized or oppressed groups, can best inform social theory.

According to Joseph Rouse (2009), even with its 'contested history', feminist standpoint approaches still remain 'an indispensable resource for feminist epistemology' (p. 201). I argue that they make at least three long-standing ethical contributions. First, as Rouse puts it, feminist standpoint epistemologies recognize that 'Knowledge claims and their justification are part of the world we seek to understand. They arise in specific circumstances and have real consequences' (p. 201). It is this emphasis on the effects of knowledge making that is important in longer-term discussions of feminist ethics. Second, standpoint theorist identified the power-saturated character of knowledge making, and the concurrent effects of that power on the world itself. Thus, 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, the attention to marginalized others, as a key characteristic of standpoint approaches, has been an enduring focus for feminist researchers (see Code, 2010).

#### Feminist Empiricism

According to Harding, feminist empiricism 'argues that sexism and androcentrism are social biases correctable by stricter adherence to the existing methodological norms of scientific inquiry' (Harding, 1986: 24). Unlike with standpoint feminists, who named themselves as such despite their diversity of approaches and views, from the beginning, there were notable difficulties with knowing just who fit into the feminist empiricist category. Part of the problem was that Harding initially provided such a slim understanding of what feminist empiricism was (see critique by McLennan, 1995). In her later work, Harding (1991, 1993) distinguished between the 'original spontaneous' feminist empiricism and 'sophisticated and valuable feminist empiricist philosophies of science' (Harding, 1993: 51) (e.g. Longino, 1993, 2002; Nelson, 1993). What seems clear, in hindsight, is that there was some overlap between analytic philosophy, analytic feminism, and feminist engagement with naturalized epistemologies (especially the work of American philosopher W.V. O. Quine, 1966, 1969), as well as feminist scientists, and feminist critiques of science. In very broad terms, this strand of work aimed to improve mainstream scientific methods by demonstrating and changing sex bias in logical positivistic practices of science.

Feminist empiricism has been characterized by at least three elements. First, in a similar way to standpoint epistemologies, it is contextualist in its view that all observation, 'facts', and 'findings' are rooted in values, including political values; some have called this 'contextual empiricism' (Rolin, 2011). Second, 'knowers' are not individuals, but communities, and more specifically, science communities and epistemological communities (Campbell, 1998; Longino, 1990, 1993, 2002; Nelson, 1990, 1993). Third, feminist empiricism has highlighted an entanglement of methods with social, ethical, and political values; ethical and political values cannot be eliminated from good epistemic practices because they play a legitimate epistemic role (Anderson, 1995; Longino, 1990; Nelson, 1990). In this vein, feminist empiricism has been described as normative in its rejection of traditional dichotomies and binaries 'that have constituted the "value-free" view of science, including the context of discovery/ context of justification distinction, the fact/ value distinction, and the traditional distinction between cognitive and social values' (Intemann, 2010: 781).

In 1991, Code pointed to the 'subversive potential' of feminist empiricism, arguing that 'it disrupts the smooth impartiality of the standard empiricist credo by introducing a specificity-adeclaration of specific intereststo contest the very possibility of a disinterested epistemology' (Code, 1991: 316). This potential for subversion will be taken up later in this chapter when I attend to how situated knowledges and epistemic responsibilities are still key feminist epistemological issues.

## Feminist Postmodernism (or Transitional Epistemologies)

It would be an understatement to say that the impacts of postmodernism and poststructuralism on epistemologies, including feminist epistemologies, have been numerous, wide ranging, and lasting. Among them was a deepening of Harding and Haraway's call for situated knowledges, which translated into greater attention to reflexivity in epistemic practices and to the role of the researcher in constructing knowledges (Mauthner & Doucet, 2003). Drawing on Jane Flax's characterization of postmodernism as 'the death of history', the 'death of meta-narratives', and the 'death of man' (Flax, 1990: 204), intersections between feminism and postmodernism also led to articulations of a multitude of perspectives, none of which could claim objectivity or transcend into the 'godtrick of seeing everything from nowhere' (Haraway, 1991: 189). Postmodernism and poststructuralism instigated many bursts of new work, but also introduced new tensions within feminism as some argued that these approaches could weaken feminist politics (e.g. Benhabib, 1995). Over time, however, feminists began to explore the possibilities of combining relativism and realism, including what Code called 'mitigated relativism' (1991: 251), through versions of 'soft', 'skeptical', or 'affirmative' postmodern positions (e.g. Rosenau, 2002).

In concluding this brief overview, it is important to note that all three approaches recognized the significance of situated knowledges, albeit in different ways, and agreed that situated objectivity meant attending to entanglements of ethical, political, and social positionings, as well as epistemic practices. As I explore later in this chapter, Code's work has always made important contributions to these discussions.

## NEW MAPPINGS OF FEMINIST EPISTEMOLOGIES AND ETHICO-ONTO-EPISTEMOLOGIES

There is now some consensus that, while initially distinguishing between three frameworks, Harding's tripartite categorization of feminist epistemologies has faded since the 1990s – a blurring that Harding herself predicted (Harding, 1987, 1991, 1998). As Code (2008: 88) put it: 'It is not that the categories have been transcended, but that they are not as distinct as they once seemed to be'. For example, since postmodern and postcolonial critiques have highlighted the importance of multiple or fragmented perspectives, feminist standpoint approaches have become more pluralistic, acknowledging many situated standpoints (Collins, 1997, 2008; Harding, 1998; Reynolds, 2002; Smith, 1999) and some have even called for a form of 'feminist standpoint empiricism' (Intemann, 2010: 779).

By the beginning of the millennium, other epistemological issues gained attention, including questions about divisions and binaries between subjects and objects, nature and culture, knowers and known, language and materialities, representations and realities, and more widely between epistemologies and ontologies. Building on long and deep tracks of work in various traditions, including phenomenology, metaphysics, feminist science studies, actor network theories, and philosophy of science, to mention only a few, these analyses have been, and continue to be, taken up and reworked in the context of the many different 'turns' that have infused theories and practices of knowledge making. These include: the 'material turn', as articulated in 'new feminist materialisms' and 'material feminisms' (e.g. Alaimo & Hekman, 2008; Barad, 2003, 2007; Coole & Frost, 2010; Haraway, 2008a, 2008b; Hekman, 2010); the 'postconstructionist turn' (Lam, 2015; Lykke, 2010); and the 'posthumanist turn' (Braidotti, 2016a, 2016b). These 'turns' have all been accompanied by deepening attention to the ontological (e.g. Ingold, 2011, 2013; Mauthner, 2015; Mol, 2002; Verran, 2001), relational ontologies (Barad, 2007; Code, 2006; Somers, 2008; Tuana, 2008, forthcoming), performativity (Barad, 2007, Bell, 2012, Law, 2004), and non-representational approaches to knowledge making. While these are extraordinarily diverse fields, and there has been much debate and disagreement within and between them, there is some consensus that these approaches, however, share one or more of the following epistemological characterizations: performative, posthuman, ecological, non-representational, relational, and with a recognition of intra-connections between epistemology, ontology, and ethics. There is currently a great multiplicity of alternative approaches, all of which build on or intersect with feminist epistemologies; these include, for example, new materialist feminisms (Alaimo & Hekman, 2008), 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; Simpson, 2011; Tuhiwai Smith, 2012), and ecological thinking (Code, 2006, 2008).

My pathway in this chapter is to work diffractively and respectfully with and from selected points of Code's ecological thinking. In the next section, I lay out why Code's work is especially instructive on the subject of feminist epistemologies and ethics, and how, across forty years, there have been both consistencies and expansions in her approach to knowledge making, subjectivities, and ethics.

## ECOLOGICAL THINKING AND RECONFIGURED CONCEPTIONS OF KNOWLEDGE MAKING AND SUBJECTIVITY

I chose to focus on Code's work for three reasons. First, as indicated in the introduction to this chapter, Code was one of the first to begin mapping feminist epistemologies and calling for 'feminist interventions, both critical and revisionist, in the discourse of epistemology' (1987: 10). Second, she is widely recognized for her emphasis on intraconnections between epistemology and ethics (see Grasswick, 2011, Longino, 2010; Rooney, 2011; Tuana, 2008). Finally, her recent work on ecological thinking, with its reconfigured notions of knowledge making and subjectivity, builds on and deepens her earlier attention to epistemic responsibility and ethics (Code, 1983, 1987, 1991, 1994, 1995, 2001). As Code admits, this work, which was 'a long time in the making' (Code, 2006: xi), builds on her long-standing 'quest for conceptions of knowledge and subjectivity capable of informing transformative, responsible, and responsive epistemic practices' (Code, 2006: xi).

What then is ecological thinking? As Code puts it, this approach 'is not simply thinking about ecology or about "the environment"" but rather a 'revisioned mode of engagement with knowledge, subjectivity, politics, ethics, science, citizenship, and agency that pervades and reconfigures theory and practice' (Code, 2006: 5, emphasis in original). Countering hegemonic 'epistemologies of mastery' that are steeped in Cartesian and Neo-Kantian philosophies, Code brings together what Bruno Latour (1993) calls 'matters of fact and matters of concern' with Deleuzian 'ethology' - 'the capacities for affecting and being affected that characterize each thing' (Deleuze, 1988: 125-126; cited in Code, 2006: 26) - and her almost forty years of writing on feminist epistemologies and their intersections with other epistemological traditions (e.g. virtue, social, and naturalized epistemologies). She maintains that ecological thinking reconfigures a wide series of relationships: epistemological, ontological, ethical, scientific, and political, as well as those between and among living beings and between human and non-human subjects and worlds.

Code's approach is guided by a larger discussion of social imaginaries and of how most knowledge making is still governed by a hegemonic social imaginary of knowledge making wherein researcher scientists are witnesses who let 'the facts speak for themselves' (Law, 2004: 120). As Code puts it, these are 'epistemologies of mastery' and 'spectator epistemologies' in which 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). The important point that I want to underline in this chapter is that ecological thinking and what Code calls 'ecological imaginaries' aim reconfigure conceptions of knowledge making, epistemic subjectivities and responsibilities, and ethics.

### Knowledge Making

In broad terms, I would argue that Code's approach to knowledge making is 'topologically' performative and non-representational. That is, drawing on Deleuze, but, more precisely, reading Deleuze (1988) through feminist theorist Vikki Bell, it takes 'the concept of performativity into new conversations' (Bell, 2012: 109) and 'elaborate[s] the concerns that are expressed in the concept, but inclining it more boldly towards the complexities of a world whose elements are always in processes of constitution, of reiterative enfolding' (Bell, 2012: 107). In short, ecological thinking means emphasizing 'a process of becoming' (Bennett, 2010: 49), 'the world in its differential becoming' (Barad, 2007: 185), and our entanglements in these becomings. This translates into focusing on the specificity of epistemic practices and on how different practices can bring forth different knowledges, realities, social worlds, and effects. The overarching idea is that we are not just making knowledges but we are 'reconfiguring' worlds (Code, 2006: 48), or participating in the making of 'material-semiotic realities' (Haraway, 1997; Barad, 2007) or 'worldlings' (e.g. Asberrg et al., 2015; Ingold, 2011, 2013; Stewart, 2010; see also Heidegger, 1971).

Code calls for 'ecological social imaginaries' to facilitate knowledge making practices that, broadly and briefly, can be characterized as a deeper form of 'situated knowing' that brings together knowing, being, and doing. This entails a shift from reflexivity as positioning, to thinking about how that positioning matters not only in the making of knowledges (see Doucet & Mauthner, 2008, 2012; Mauthner & Doucet, 2003), but also in the making of worlds. As Hughes and Lury (2013) write, this is 'a re-turn to situatedness, not as a position or an identity, but as emergent in the diverse processes of differentiation, the patterns of movement, that constitute the moving surface or ground of figures of knowledge' (p. 792). This also means thinking 'not just about objects of knowledge but also about knowers' (Grasswick, 2011: xxii). As Code puts it:

'[S]ituation' is not just a place from which to know, as the language of 'perspectives' might imply, indifferently available to anyone who chooses to stand there. Situation is itself a place to know whose intricacies have to be examined for how they shape both knowing subjects and the objects of knowledge; how they legitimate and/ or disqualify knowledge projects. (2006: 40, emphasis in original)

For Code and others, knowledge making is about a deeper set of relational entanglements where relations between the researcher and the researched unfold together, not as 'independently existing objects' but rather as a 'phenomenon in their ongoing materialization' (Barad, 2007: 151) and 'entanglements of relations' (Barad, 2007: 34; see also Mauthner, 2015). This move to view knowing as a relationship is a point that resonates deeply with a growing body of work by indigenous scholars on indigenous epistemologies and relational ontologies (e.g. Craft, 2013; McGuire, 2010; Simpson, 2011, 2014; Watts, 2013).

#### **Ecological Subjects**

Ecological thinking 'offers a conceptual frame within which to construct a responsive-responsible theory of knowledge and subjectivity' (Code, 2006: 21) wherein researchers

are responsive to, and responsible for, their participation in and accounting of unfolding worlds and dialogically constituted narratives. This challenges us to think differently about our positioning as researchers. Broadly put, this is a shift from data gathering, 'collecting stories' (Code, 2011: 217), and representing data to 'intervening' *in* (Hacking, 2002; Verran, 2002, 2013), and 'intra-action' (Barad, 2007) *with*, data and with research subjects and their worlds. In Longino's words: 'Action, engagement, and projection replace representation' (2010: 737).

Code argues that the ecological subject that she advances resonates with Haraway's 'modest witness' (Haraway, 1997) – a knower who is engaged, partial, political, and humble. Knowledge making 'is always an interpretive, engaged, contingent, fallible engagement' (Haraway, 2000: 167). It means 'casting our lot with some ways of life and not others' (Haraway, 1997: 36). In a similar way, Code posits that even though it is a 'contentious claim [that] advocacy is often what makes knowledge possible' (Code, 2006: 23).

## REMAKING EPISTEMIC RESPONSIBILITIES AS ETHICO-ONTO-EPISTEMOLOGICAL PRACTICES

The concept of epistemic responsibility was, as Code recently acknowledged, 'something of a sleeper' (Code, 2015: 2); indeed, her 1987 book entitled Epistemic Responsibility 'had an awkward publication history: it did not do well, was subject to vicious attacks at philosophy conferences and in reviews, and is now out of print' (Code, 2015: 2). This was partly because, as Code put it, the concept sat 'uneasily with epistemologists', as the concept and the questions it raised were 'thought not to be properly epistemological at all, but to belong to ethics, or to the softer fringes of everyday talk about knowledge, rather than to the hard center of serious epistemological analysis' (Code, 1991: 3-4).

Code recently confirmed, however, that 'the concept and the practices it signals are acquiring new respect' (Code, 2015: 2). Indeed, over the past decade, epistemic responsibilities, and sister concepts, such as 'ontological politics' (Mol, 1999, 2002), or 'accountability', (Barad, 2007; Kenney, 2015) are receiving growing positive attention. Feminist epistemologist Helen Longino, recently paid tribute to Code's leadership on this issue in her review of a quarter-century of feminist epistemological work. She argues that Code brought 'the responsibility of the knower into the center of epistemological reflection' so that knowledge 'in the hands of these thinkers, becomes an active relationship charged with ethical dimensions, rather than an uninvolved representation of objects' (Longino, 2010: 735). It is evident that the shifting terrains of knowledge making and subjectivity as well as growing attention to entanglements between epistemologies, ontologies, and ethics partly explain the recovery of the concept of epistemic responsibility. Meanwhile, there has also been a deepening and an expansion of the concept in the work of Code and other feminist scholars. In this next section of the chapter, I point to some of these endeavors and develop three points that relate to epistemic practices and ethics.

#### **Epistemic Practices**

In her earlier work, Code called attention to the importance of epistemic practices and to our need to take responsibility for the methods that researchers develop and use. She noted that 'ethical-political and epistemological questions are inextricably intertwined' and that 'epistemological questions invoke ethical requirements'. Her commitment to the argument that 'ethical-political action is dependent on the quality of the epistemic activity that informs it' (Code, 1995: xiii) is evident, in my view, in how Code is one of the few feminist philosophers who also actively engages with grounded methodological questions and concrete research practices. For example, in the 1980s and 1990s, she advocated for the development of 'vigilant methods' (Burt & Code, 1995: 33), such as participatory, activist, and experiential research practices. Whereas many feminist epistemologists have written about the philosophical dimensions of knowledge making, Code has thought through the complexities of what this means at the level of practice.

Although she has maintained her focus 'on the ethics and politics of knowing other people responsibly and well, singly and/or collectively', in her recent writing, 'the extension of responsibility injunctions is much broader' (Code, 2011: 207). That is, building on the points I made above about reconfigured knowledge making and subjectivities, Code's work exhibits a stronger focus on epistemic responsibility and ethical issues of knowing in three ways. First, she gives attention to the complexity of knowledge making practices and processes. She acknowledges that epistemic responsibility is still 'about being accountable to the evidence' where evidence is approached as relationally constituted, ontologically relational, and multiple in its meanings and enactments. Being accountable, however, also means thinking expansively about how 'evidence comes to count as evidence'. Code advises undertaking responsive research - slow research that is attentive to unfolding worlds - and resisting 'superimposing a grid upon events, experiences, and situations, tucking in the bits that spill over the edges, letting putative aberrations drop through the cracks' (Code, 2006: 18).

A second point about epistemic practices is that researchers are not only engaged in the making of knowledges, but also in the making of worlds or 'wordlings'. Here Code's ecological thinking approach imbues epistemic practices with 'a large measure of responsibility' in that they are 'about imagining, crafting, articulating, [and] endeavoring to enact principles of ideal cohabitation' (Code, 2006: 24). Finally, Code attends to the extensive effects and consequences of our knowledge making practices, processes, and products, thereby invoking an enriched and more urgent sense of our responsibilities as knowers and as epistemic subjects. As Barad writes, accountability 'is not about representations of an independent reality, but about the real consequences, interventions, creative possibilities, and responsibilities of intra-acting within the world' (Barad, 1996: 188).

## Choices, Response-ability<sup>1</sup>, and the 'Politics of Possibilities'

Code continues her long-standing call for researchers to take epistemic responsibly -'to engage in ways that put his/her subjectivity also on the line; to assume responsibility for what and how he/she claims to know' (Code, 2001: 275). This means that the researchers do have choices, although 'the extent to which there are genuine choices about how to know the world and its inhabitants' are obscured by 'foundational and coherentist theories of knowledge' (Code, 1991: 3). Nancy Tuana recently acknowledged Code's contributions in this regard. She writes: 'we do not simply "read" such distinctions from nature, but take epistemic responsibility for the distinctions we employ' (2008: 192, emphasis in original). As Code so persuasively argued, we cannot separate epistemic analysis from ethical analysis. In a similar way, Barad (2007: 93) recognizes our 'boundary-drawing practices, the constitutive exclusions that are enacted, and questions of accountability and responsibility for the reconfigurings of which we are part'. In this vein, I would argue that epistemic responsibility, as an evolving concept, exemplifies Barad's 'ethico-onto-epistemology (Barad, 2007: 185) as an 'ethics of knowing' (Barad, 1996: 183) where 'ethics and politics' are 'co-constitutive' (Code, 2010: 35).

Code's constant concern about our choices as researchers has gained a stronger sense of

urgency in recent years. As she details clearly in her Preface to *Ecological Thinking*, one of the largest shifts in her work has been to acknowledge that she had previously relied on an 'excessively benign conception of community' (Code, 2006: v). Extending the insights of feminist empiricism, wherein knowers are not individuals but rather 'individuals-in-communities' (Grasswick, 2004), there are indeed many communities that are part of the making, the possibilities of making, the reception, and the effects of knowledge making.

Using detailed case studies, including that of Nancy Oliveri, a Canadian medical doctor who blew the whistle on the pharmaceutical industry's role in science practices, Code highlights epistemic tensions between researchers and their varied epistemic communities: research subjects and objects; funders and invested parties; and research communities with long established methods, 'inscription devices' (Latour & Woolgar, 1986; Law, 2004), and material-semiotic practices (Haraway, 1991, 1997). She also discusses the ethical issues arising from these tensions and the epistemic responsibilities researchers have towards each of these communities in 'the production, circulation, and acknowledgment of claims to know' (Code, 2006: viii). For Code, these tensions introduce new, or reconfigured understandings of responsibility and accountability.

## Wider Socio-Political Responsibilities

Building on her discussion about how she has moved away from her earlier, 'benign' concept of community, Code further asserts that 'epistemic responsibilities have to be negotiated, *much more arduously than* [she] *had assumed*' in order to 'counter the excesses of demonstrably unjust socialpolitical-epistemic orders' (Code, 2006: viii; emphasis added). She argues that thinking about our epistemic responsibilities means thinking about how these 'could translate into wider issues of citizenship and politics' (p. 24) and how they might generate 'innovative, revisionary knowledge projects with the social-political transformations, renewals, and disruptions they may animate' (Code, 2011: 209). Rouse concurs, reminding us how 'conceptual understanding and ethical accountability are always entangled,' and how our wider responsibility as researchers 'also establishes an accountability for what we become and how we live' (Rouse, 2016; see also Rouse, 2015).

#### **RESEARCH IMPLICATIONS**

In this final section, I briefly highlight six methodological implications that emerge from Code's work that could guide qualitative and post qualitative research. First, as Code asserts, there are no 'precise recipes', nor 'clear rules' (Code, 2008: 80) for putting ecological thinking into practice; rather, each site, discipline, research encounter, and problematic has its own set of issues that researchers must think through. Second, and relatedly, a deeper and wider understanding of 'situated knowledges' means recognizing that situatedness is 'not just a place from which to know' but 'is itself a place to know' (Code, 2006: 40, emphasis in original). Third, this requires genealogical excavation of our conceptual and methodological practices and a clarification of the underpinning epistemological and ontological assumptions about words and worlds. Fourth, there is a shift from reflexivity to diffraction (Barad, 2007; Code, 2006, Haraway, 1997). Whereas reflexivity is an epistemic practice that holds objects and subjects at a distance so as to enable representation, diffraction is about relationships, intervention, and 'interacting within and as part of' (Barad, 2007: 89); it is an 'optical metaphor for "the effort to make a difference in the world" (Code, 2006: 121; citing Haraway, 1997:16), while also taking responsibility for our interventions. A fifth methodological implication of ecological thinking, which builds on Code's longstanding roots in philosophical pragmatism (Code, 1995; see also McHugh, 2015), is the need to *negotiate* knowledge making; as she puts it, 'epistemic responsibilities have to be negotiated' in order to 'counter the excesses of demonstrably unjust social-political-epistemic orders' (Code, 2006: vii). Finally, researchers must sometimes work across, and negotiate, instituted and instituting social imaginaries in order to maximize possibilities for ethical knowing and intervention.

This point about working across social imaginaries is a complex one, but underlines Code's commitment to feminist epistemological principles of attending to power in knowledge making and how different forms of negotiated evidence can challenge powerinfused epistemic practices, institutions, and effects. Put briefly, for Code, the relationship between instituted and instituting imaginaries is not oppositional, fixed, or linear, nor is it a matter of one replacing the other. Rather, the 'instituted imaginary is never seamless or static ... it is always in motion' while its 'gaps ... open up spaces for the work of the instituting imaginary' (Code, 2006: 33).

Code provides an excellent example of working pragmatically across social imaginaries in her detailed case study of Rachel Carson, the award-winning author of Silent Spring (1962). A scientist, environmentalist, and activist who challenged American pesticide companies over the use of DDT in crop spraying, Carson, as Code describes it, mapped out diverse readings of different kinds of evidence, 'charting, bringing together, and moving back and forth between/among quite different subject areas' and 'various kinds of knowledge with widely differing histories, methods, and assumptions' (Code, 2006: 40). For Code, Carson needed to be 'multilingual and multiply literate: to speak the language of laboratory science, wildlife organizations, government agencies, chemical-producing companies, secular nature lovers, and many

others; to understand the detail of scientific documents and the force of experiential reports; to work back and forth between an *imaginary of mastery and of ecology*' (Code, 2006: 44; emphasis added). Code argues that Carson's epistemic practices were pragmatic, responsive, relational, and responsible and were situated on 'a middle path, working back and forth' (Code, 2006: 43) between instituted and instituting social imaginaries.

Code's approach to knowledge making, subjectivity, and epistemic responsibilities leads to what she calls 'methodological pluralism' (Code, 2006: 19), meaning that researchers must sometimes 'move back and forth between different ways of organizing knowledge that may appear mutually incompatible' (Code, 2006: 284–285). This connects, in turn, with what Patti Lather and Elizabeth St. Pierre (Lather & St. Pierre, 2013; see also Lather, 2006, 2013) call postqualitative research, which works 'against a linear sense of development' and is a way of working that 'deliberately holds together necessary incompatibilities' (Lather, 2006: 36).

#### CONCLUSION

From its inception in the early 1980s, the field of feminist epistemologies has been called an 'oxymoron' (Alcoff & Potter, 1993: 1), 'both a paradox and a necessity' (Longino, 1993: 327), and 'marginalized, if not invisible, in "mainstream" epistemologies' (Rooney, 2011: 3). At the same time, feminist epistemologies have made seminal contributions to theories and practices of knowledge making, subjectivities, and ethics. As Rooney (2011: 14-15) argues, the marginality of feminist epistemologies has also translated into a 'metaepistemic advantage' in that it 'affords specific insights into the limited understandings of epistemology'. In this chapter, working mainly with the ecological thinking approach of pioneering feminist epistemologist, Lorraine Code, I have argued that concepts and practices of epistemic responsibilities and situated knowledges are enduring feminist epistemological contributions to debates on ethics in research. I also detailed how radical shifts from a focus on epistemologies to ethico-onto-epistemologies have reconfigured approaches to knowledge making, subjectivities, epistemic responsibilities, and the politics and ethics of knowledge/world making.

#### Note

1 I remain grateful to Carol Gilligan for pointing out to me, in 1993, the links between responsibility and response-ability.

#### REFERENCES

- Alaimo, S. (2008) Trans-corporeal Feminisms and the Ethical Space of Nature. In: Alaimo, S. and Hekman, S. (eds) *Material Feminisms*. Bloomington, IN: Indiana University Press, 237–264.
- Alaimo, S. (2010) Bodily Natures: Science, Environment, and the Material Self. Bloomington, IN: Indiana University Press.
- Alaimo, S. and Hekman, S. (2008) Material Feminisms. Bloomington, IN: Indiana University Press.
- Alcoff, L. and Potter, E. (1993) Introduction: When Feminisms Intersect Epistemology. In: Alcoff, L. and Potter, E. (eds) *Feminist Episte-mologies*. London: Routledge, 1–14.
- Anderson, E. (1995) Feminist epistemology: An interpretation and defense. *Hypatia* 10(3): 50–84.
- Antony, L.M. (1993) Quine as Feminist: The Radical Import of Naturalized Epistemology. In: Antony, L.M. and Witt, C.E. (eds) A Mind of One's Own: Feminist Essays on Reason and Objectivity. Cambridge, MA: Westview Press, 185–226.
- Asberrg, C, Thiele, K., and van der Tuin, I. (2015) Speculative before the turn: Reintroducing feminist materialist performativity. *Cultural Studies Review* 21(2): 145–172.
- Barad, K. (1996) Meeting the Universe Halfway: Realism and Social Constructivism without

Contradiction. In: Nelson, J. and Nelson, L.H. (eds) *Feminism, Science and the Philosophy of Science*. Dordrecht: Kluwer, 161–194.

- Barad, K. (2003) Posthumanist performativity: Toward an understanding of how matter comes to matter. *Signs: Journal of Women in Culture and Society* 28(3): 801–831.
- Barad, K. (2007) Meeting the Universe Halfway: Quantam Physics and the Entanglement of Matter and Meaning. Durham, NC: Duke University Press.
- Barad, K. (2010) Quantum entanglements and hauntological relations of inheritence: Dis/continuities, spacetimeenfoldings, and justiceto-come. *Derrida Today* 3(2): 240–268.
- Bell, V. (2012) Declining performativity: Butler, Whitehead and ecologies of concern. *Theory, Culture & Society* 29(2): 107–123.
- Benhabib, S. (1995) Feminism and Postmodernism. In: Benhabib, S., Butler, J., Cornell, D., and Fraser, N. (eds) *Feminist Contentions: A Philosophical Exchange*. New York: Routledge, 17–34.
- Bennett, J. (2010) Vibrant Matter: A Political Ecology of Things. Durham, NC: Duke University Press.
- Braidotti, R. (2016a) *The Posthuman*. London: Polity Press.
- Braidotti, R. (2016b) Posthuman Feminist Theory. In: Disch, L. and Hawkesworth, M. (eds) *The Oxford Handbook of Feminist Theory*. Oxford: Oxford University Press, 673–698.
- Burt, S. and Code, L. (1995) *Changing Methods: Feminists Transforming Practice*. Toronto, ON: University of Toronto Press.
- Campbell, R. (1998) *Illusions of Paradox: A Feminist Epistemology Naturalized.* Lanham, MD: Rowman & Littlefield.
- Code, L. (1981) Is the sex of the knower epistemologically significant? *Metaphilosophy* 12(3–4): 267–276.
- Code, L. (1983) Responsibility and the epistemic community: Women's place. *Social Research* 50(3): 537–555.
- Code, L. (1987) *Epistemic Responsibility*. Hanover, NH: University Press of New England for Brown University.
- Code, L. (1988) Experience, Knowledge and Responsibility. In: Griffiths, M. and Whitford, M. (eds) *Feminist Perspectives in Philosophy*. Bloomington, IN: Indiana University Press, 187–204.

- Code, L. (1991) What Can She Know? Feminist Theory and the Construction of Knowledge. Ithaca, NY: Cornell University Press.
- Code, L. (1993) Taking Subjectivity into Account. In: Alcoff, L.M. and Potter, E. (eds) *Feminist Epistemologies*. New York: Routledge, 15–48.
- Code, L. (1994) Responsibility and rhetoric. *Hypatia* 9(1): 1–20.
- Code, L. (1995) *Rhetorical Spaces: Essays on Gendered Locations*. New York: Routledge.
- Code, L. (1996) What is natural about epistemology naturalized? *American Philosophical Quarterly* 33(1): 1–22.
- Code, L. (1998) How to think globally: Stretching the limits of imagination. *Hypatia* 13(2): 73–85.
- Code, L. (2001) Rational Imaginings, Responsible Knowings: How Far Can You See From Here? In: Tuana, N. and Morgen, S. (eds) *Engendering Rationalities*. Albany, NY: State University of New York, 261–282.
- Code, L. (2006) *Ecological Thinking: The Politics of Epistemic Location*. New York: Oxford University Press.
- Code, L. (2008). Rereading ecological thinking. *Ethics, Place & Environment* 11(1): 76–90.
- Code, L. (2010) Testimony, Advocacy, Ignorance: Thinking Ecologically about Social Knowledge. In: Haddock, A., Millar, A., and Pritchard, D. (eds) *Social Epistemology*. Oxford: Oxford University Press, 29–50.
- Code, L. (2011) 'They Treated Him Well': Fact, Fiction, and the Politics of Knowledge. In: Grasswick, H.E. (ed) *Feminist Epistemology and Philosophy of Science: Power in Knowledge*. London: Springer, 205–221.
- Code, L. (2014) Feminist Epistemology and the Politics of Knowledge: Questions of Marginality. In: Evans, M., Hemmings, C., Henry, M. et al. (eds) *The SAGE Handbook of Feminist Theory*. London: Sage, 9–25.
- Code, L. (2015) *Knowledge and Subjectivity*. Invited Presentation at Guelph Philosophy at 50. Guelph, Ontario: University of Guelph. June 7, 2015.
- Collins, P.H. (1997) Comment on Hekman's 'Truth and Method: Feminist Standpoint Theory Revisited': Where's the Power? *Signs: Journal of Women in Culture and Society* 22(2): 375–381.
- Collins, P.H. (2008) Black Feminist Thought: Knowledge, Consciousness, and the Politics

*of Empowerment* (2nd edn). London: Routledge.

- Coole, D. and Frost, S. (2010) Introducing the New Materialisms. In: Coole, D. and Frost, S. (eds) *New Materialisms: Ontology, Agency, and Politics.* Durham, NC: Duke University Press, 1–43.
- Craft, A. (2013) Breathing Life into the Stone Fort Treaty: An Anishinabe Understanding of Treaty One. Saskatoon, Saskatchewan: Purich Publishing.
- Deleuze, G. (1988) *Spinoza: Practical Philoso-phy*. (R. Hurley, trans.). San Francisco: City Lights Books.
- Doucet, A. and Mauthner, N.S. (2008) What can be known and how? Narrated subjects and the Listening Guide. *Qualitative Research* 8(3): 399–409.
- Doucet, A. and Mauthner, N.S. (2012) Knowing Responsibly: Ethics, Feminist Epistemologies and Methodologies. In: Miller, T., Birch, M., Mauthner, M., and Jessop, J. (eds) *Ethics in Qualitative Research*. Second Edition. London: Sage, 122–139.
- Duran, J. (1991) *Toward a Feminist Epistemology.* New York: Rowman & Littlefield.
- Flax, J. (1990) *Thinking Fragments: Psychoanalysis, Feminism, and Postmodernism in the Contemporary West.* Berkeley, CA: University of California Press.
- Grasswick, H.E. (2004) Individuals-in-communities: The search for a feminist model of epistemic subjects. *Hypatia* 19(3): 85–120.
- Grasswick, H.E. (2011) Introduction: Feminist Epistemology and Philosophy of Science in the Twenty-First Century. In: Grasswick, H.E. (ed.) *Feminist Epistemology and Philosophy of Science: Power in Knowledge*. London: Springer, xiii–xxx.
- Hacking, I. (2002) *Historical Ontology*. Boston, MA: Harvard University Press.
- Haraway, D.J. (1988) Situated knowledges: The science question in feminism and the privilege of partial perspective. *Feminist Studies* 14(3): 575–599.
- Haraway, D.J. (1991) *Simians, Cyborgs and Women: The Reinvention of Nature*. London: Free Association Books.
- Haraway, D.J. (1997) Modest\_Witness@Second\_ Millenium.FemaleMan©Meets\_Oncomouse™: Feminism and Technoscience. New York: Routledge.

- Haraway, D.J. (2000) *How Like a Leaf: An Interview with Thyrza Nichols Goodeve.* New York: Routledge.
- Haraway, D.J. (2008a) Otherworldy Conversations, Terrain Topics, Local Terms. In: Alaimo, S. and Hekman, S. (eds) *Material Feminisms*. Bloomington, IN: Indiana University Press, 157–187.
- Haraway, D.J. (2008b) *When Species Meet.* Minneapolis, MN: The University of Minnesota Press.
- Harding, S. (1986) *The Science Question in Feminism*. Ithaca, NY: Cornell University Press.
- Harding, S. (1987) Conclusion: Epistemological Questions. In: Harding, S. (ed.) *Feminism and Methodology*. Bloomington, IN: Indiana University Press, 181–190.
- Harding, S. (1991) Whose Science? Whose Knowledge? Thinking from Women's Lives. Ithica, NY: Cornell University Press.
- Harding, S. (1993) Rethinking Standpoint Epistemologies: What is Strong Objectivity. In: Alcoff, L. and Potter, E. (eds) *Feminist Epistemologies*. London: Routledge, 49–82.
- Harding, S. (1998) Is Science Multicultural? Postcolonialism, Feminisms and Epistemologies.Bloomington, IN: Indiana University Press.
- Harding, S. and Hintikka, M.B. (Eds.) (1983/2003) Discovering Reality: Feminist Perspectives on Epistemology, Metaphysics, Methodology, and Philosophy of Science. Dordrecht, Netherlands: D. Reidel / Kluwer.
- Hartsock, N. (1983) The Feminist Standpoint: Developing the Ground for a Specifically Feminist Historical Materialism. In: Harding, S. and Hintikka, M.B. (eds) *Discovering Reality*. Dordrecht, Netherlands: D. Reidel, 283–310.
- Hartsock, N. (2003) The Feminist Standpoint. In: Harding, S. and Hintikka, M.B. (eds) *Discovering Reality*, Second Edition. Dordrecht, Netherlands: Kluwer, 283–310.
- Heidegger, M. (1971) *Poetry, Language, Thought*. New York: Harper & Row.
- Hekman, S. (1997) Truth and method: Feminist standpoint theory revisited. Signs: Journal of Women in Culture and Society 22(2): 341–365.
- Hekman, S. (2010) *The Material of Knowledge: Feminist Disclosures*. Bloomington, IN: Indiana University Press.
- Hill Collins, P. (1986) Learning from the outsider within: The sociological significance of

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black feminist thought. *Social Problems* 33(6): \$14–\$32.

- Hill Collins, P. (2000) Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment. London: Routledge.
- Hill Collins, P. and Bilge, S. (2016) Intersectionality, London: Polity.
- Hughes, C. and Lury C. (2013) Re-turning feminist methodologies: From a social to an ecological epistemology. *Gender and Education* 25(6): 786–799.
- Ingold, T. (2011) *Being Alive: Essays on Movement, Knowledge and Description*. Abingdon, Oxon: Routledge.
- Ingold, T. (2013) *Making: Anthropology, Archaeology, Art and Architecture*. Abingdon, Oxon: Routledge.
- Intemann, K. (2010) 25 Years of feminist empiricism and standpoint theory: Where are we now? *Hypatia* 25(4): 778–796.
- Kenney, M. (2015) Counting, accounting, and accountability: Helen Verran's relational empiricism. Social Studies of Science 45(5): 749–771.
- Kovach, M.E. (2010) *Indigenous Methodologies: Characteristics, Conversations, and Contexts.* Toronto, ON: University of Toronto Press.
- Lam, C. (2015) New Reproductive Technologies and Disembodiment: Feminist and Material Resolutions. Farnham, UK: Ashgate Publishing.
- Lather, P. (2006) Paradigm proliferation as a good thing to think with: Teaching research in education as a wild profusion. *International Journal of Qualitative Studies in Education* 19(1): 35–57.
- Lather, P. (2013) Methodology-21: What do we do in the afterward? International Journal of Qualitative Studies in Education 26(6): 634–45.
- Lather, P. and St. Pierre, E.A. (2013) Postqualitative research. *International Journal of Qualitative Studies in Education* 26(6): 629–33.
- Latour, B. (1993) We Have Never Been Modern. Brighton: Harvester Wheatsheaf.
- Latour, B. and Woolgar, S. (1986) *Laboratory Life: The Construction of Scientific Facts.* Princeton, NJ: Princeton University Press.
- Law, J. (2004) *After Method: Mess in Social Science Research*. London: Routledge.
- Lennon, K. and Whitford M. (1994) Introduction. In: Lennon, K. and Whitford, M. (eds) *Knowing*

the Difference: Feminist Perspectives in Epistemology. London: Routledge, 1–14.

- Longino, H.E. (1990) *Science as Social Knowledge: Values and Objectivity in Scientific Inquiry.* Princeton, NJ: Princeton University Press.
- Longino, H.E. (1993) Subjects, Power and Knowledge: Description and Prescription in Feminist Philosophies of Science. In: Alcoff, L. and Potter, E. (eds) *Feminist Epistemologies*. London: Routledge, 101–120.
- Longino, H.E. (1997) Feminist epistemology as a local epistemology. *Aristotelian Society Supplementary Volume* 71(1): 19–35.
- Longino, H.E. (2002) *The Fate of Knowledge*. Princeton, NJ: Princeton University Press.
- Longino, H.E. (2010) Feminist epistemology at Hypatia's 25th Anniversary. *Hypatia* 25(4): 733–741.
- Lykke, N. (2010) The timeliness of postconstructionism. NORA-Nordic Journal of Feminist and Gender Research 18(2): 131–136.
- Mauthner, N.S. (2015) 'The past was never simply there to begin with and the future is not simply what will unfold': A posthumanist performative approach to qualitative longitudinal research. *International Journal of Social Research Methodology* 18(3): 321–336.
- Mauthner, N.S. and Doucet, A. (2003) Reflexive accounts and accounts of reflexivity in qualitative data analysis. *Sociology* 37(3): 413–431.
- McGuire, P.D. (2010) Exploring resilience and Indigenous ways of knowing. *Pimatisiwin: A Journal of Aboriginal and Indigenous Community Health* 8(2): 117–131.
- McHugh, N.A. (2015) *Limits of Knowledge: Generating Pragmatist Feminist Cases for Situated Knowing*. Albany, NY: State University of New York.
- McLennan, G. (1995) Feminism, epistemology and postmodernism: Reflections on current ambivalence. *Sociology* 29(3): 391–409.
- Mol, A. (1999) Ontological politics. A word and some questions. In: Law, J. and Hassard, J. (eds) Actor Network Theory and After. Oxford: Wiley-Blackwell, 74–89.
- Mol, A. (2002) *The Body Multiple: Ontology in Medical Practice*. Durham, NC: Duke University Press.
- Nelson, L.H. (1990) *Who Knows: From Quine* to a Feminist Empiricism. Philadelphia, PA: Temple University Press.

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- Nelson, L.H. (1993) Epistemological Communities. In: Alcoff, L. and Potter, E. (eds) *Feminist Epistemologies*. New York: Routledge, 121–159.
- Quine, W.V.O. (1966) *The Ways of Paradox and Other Essays*. New York: Random House.
- Quine, W.V.O. (1969) Ontological Relativity and Other Essays. New York: Columbia Univeristy Press.
- Reynolds, T. (2002) Re-thinking a black feminist standpoint. *Ethnic and Racial Studies* 25(4): 591–606.
- Rolin, K. (2011) Contextualism in Feminist Epistemology and Philosophy of Science. In: Grasswick, H.E. (ed.) *Feminist Epistemology and Philosophy of Science: Power in Knowledge*. London and New York: Springer, 25–44.
- Rooney, P. (2011) The Marginalization of Feminist Epistemology and What That Reveals About Epistemology 'Proper'. In: Grasswick, H.E. (ed.) *Feminist Epistemology and Philosophy of Science: Power in Knowledge*. London and New York: Springer, 3–24.
- Rose, H. (1983) Hand, brain and heart: A feminist epistemology for the natural sciences. *Signs: Journal of Women in Culture and Society* 9(1): 73–96.
- Rosenau, P. (2002) Post-Modernism and the Social Sciences: Insights, Inroads, and Intrusions. Princeton, NJ: Princeton University Press.
- Rouse, J. (2009) Standpoint theories reconsidered. *Hypatia* 24(4): 200–209.
- Rouse, J. (2015) Articulating the World: Conceptual Understanding and the Scientific Image. Chicago, IL: The University of Chicago Press.
- Rouse, J. (2016) The Conceptual and Ethical Normativity of Intra-active Phenomena. *Rhizomes* 30. Retrieved from http://www.rhizomes.net/issue30/rouse.html
- Simpson, L.B. (2011) Dancing On Our Turtle's Back: Stories of Nishnaabeg Re-Creation, Resurgence, and a New Emergence. Winnipeg, Manitoba: Arbeiter Ring Publishing.
- Simpson, L.B. (2014) Land as pedagogy: Nishnaabeg intelligence and rebellious transformation. *Decolonization: Indigeneity, Education & Society* 3(3): 1–25.
- Siltanen, J. and Doucet, A. (in press) Gender Relations in Canada: Intersectionalities and

Social Change. Toronto, ON: Oxford University Press.

- Smith, D.E. (1987) *The Everyday World as Problematic: A Feminist Sociology,* Boston, MA: Northeastern University Press.
- Smith, D.E. (1999) Writing the Social: Critique, Theory, and Investigations. Toronto, ON: University of Toronto Press.
- Somers, M.R. (2008) Genealogies of Citizenship: Markets, Statelessness and the Right to Have Rights. Cambridge: Cambridge University Press.
- Stewart, K. (2010) Afterword. Worlding Refrains. In: Gregg, M. and Seigworth, G.J. (eds) *The Affect Theory Reader*. Durham, NC: Duke University Press, 339–354.
- Tuana, N. (2008) Viscious Porosity: Witnessing Katrina. In: Alaimo, S. and Hekman, S. (eds) *Material Feminisms*. Bloomington, IN: Indiana University Press, 188–213.
- Tuana, N. (forthcoming) Being Affected by Climate Change: The Anthropocene and the Body of Ethics. In: Shockley, K. and Light, A. (eds) *Ethics and the Anthropocene*. MIT Press.
- Tuhiwai Smith, L. (2012) *Decolonizing Methodologies: Research and Indigenous Peoples.* Second Edition. London: Zed Books.
- Verran, H. (2001) Science and an African logic. Chicago, IL: The University of Chicago Press.
- Verran, H. (2002) A postcolonial moment in science studies: Alternative firing regimes of environmental scientists and Aboriginal landowners. *Social Studies of Science* 32(5–6): 729–762.
- Verran, H. (2013) Engagements between disparate knowledge traditions: Toward doing difference generatively and in good faith. In: Green, L. (ed.) *Contested Ecologies: Dialogues in the South on Nature and Knowledge*. Cape Town, SA: HSRC Press, 141–161.
- Watts, V. (2013) Indigenous place-thought and agency amongst humans and non-humans (First Woman and Sky Woman go on a European world tour!) *Decolonization: Indigeneity, Education & Society* 2 (1): 20–34.
- Wylie, A. (2003) Why Standpoint Matters. In: Figueroa, R. and Harding, S. (eds) *Science and Other Cultures: Issues in Philosophies of Science and Technology*. New York: Routledge, 26–48.