

Educational Epistemic Ecosystems: Re-visioning Educational Contexts on Lorraine Code's *Ecological Thinking*

James C. Lang

The Ontario Institute for Studies in Education, University of Toronto

OVERVIEW AND RATIONALE

In the opening section of his introduction to the recent special *Symposium: Epistemology and Education* edition of *Educational Theory*, guest editor Harvey Siegel claims that:

Education is concerned (among many worthy things) with the transmission of knowledge...and the development in students of character traits relevant to responsible believing, such as intellectual curiosity and humility and the dispositions to question and demand reasons for candidate beliefs. All these raise epistemological issues (concerning the nature of knowledge and of justification, the character of rationality, and so on) thereby making epistemology and the pursuit of such issues central to the philosophy of education.¹

I agree wholeheartedly with Siegel regarding the importance of the issues he raises and with his claim that epistemology ought to be “at the center of the philosophical study of education.”² I am quite sure he is also correct in stating that epistemological research has been booming in the “mainstream epistemological world,” but these important epistemological issues are also the subject of intense philosophical research *outside* the mainstream — and, largely, outside philosophy of education — where dozens of serious scholars have produced hundreds of publications that “trouble” mainstream epistemological assumptions; these include the generative works of Donna Haraway, Sandra Harding, Nancy Hartsock, Nancy Tuana, and Lorraine Code, for example.

My purpose here is to offer a snapshot of some work of just one of these philosophers, Lorraine Code, who brings a large and widely recognized body of work in epistemology, with four major books since 1987 when she published *Epistemic Responsibility*, wherein she argues for the moral requirement to “know well.” This was followed in 1991 by *What Can She Know?* in which she establishes the epistemological relevance of gender, and in 1995 *Rhetorical Spaces* introduces a collection of essays on the politics of knowledge, among other epistemic considerations. For this essay, I have chosen to draw from her most recent book (as of this writing), *Ecological Thinking: The Politics of Epistemic Location*, since it builds on and advances ideas central to all her previous works.³ I set the stage with a “micro-overview” of mainstream epistemology⁴ and references to authors whose works challenge its core assumptions.

MAINSTREAM EPISTEMOLOGY

I take it as given — and have seen nothing in the Symposium edition to suggest otherwise — that, in spite of internal disagreements and recent refinements, mainstream epistemology remains wedded to the core features of “S knows that p” rubric that continues to serve as the gold standard for what can be claimed and justified as knowledge. To provide a minimal context for what follows, I review just

a few of its broadly constitutive features. First, it is crucial to mainstream epistemology that this formula requires stripping the particularities of knowledge claimants from the justificatory process so that it can be applied universally to all knowledge claims made anywhere by anyone. Since knowledge is thought to transcend knowers, the knowledge claiming and justificatory processes — and knowledge itself — are thus beyond the realm of moral considerations. “Knowing” is neither wrong nor right: It just is. “Knowledge” is necessarily taken as singular because it transcends the particularities of its knowers — knowledge for one is knowledge for all.

To mainstreamers, taken in broad brushstrokes, this is not viewed as one version of rationalism, but as rationalism *tout court*; not one version of epistemology, but *epistemology*, full stop. Teaching and reinforcing rationality, so construed, is thus also a morally neutral activity because the constituents of rationality and the knowledge it validates transcend the individuals involved. Viewed through the lens of mainstream epistemology, educational epistemic practice — for example, the “transmission of knowledge” — is necessarily a morally neutral, two-dimensional activity, flattening teachers, students, and knowledge against an idealized epistemological model that eschews the particularities of its embodied participants.

Code advances the idea, cogenerated and widely accepted by feminist epistemologists, that knowledge is not transcendent. Establishing a relationship between the knower and the object of knowing represents perhaps the most important accomplishment of feminist epistemologists to date, yet anything more than a glimpse of this early work is beyond the scope of this essay. As well, feminist epistemologies view the force of their work as greater in aggregate and resist reduction to syntheses, just as Code and others resist the notion that knowledge is always best adjudicated in propositional terms.⁵ Therefore, I offer only the following sketch of the ways these claims emerged in extant works by a sampling of key authors.

Claims that knowledge does not transcend knowers is most often derived from research that demonstrates the masculinist origins and features of epistemology as received — principally the notions of idealized autonomy and rationality.⁶ Harding and Haraway challenged transcendent knowledge early in the 1980s, among others working in philosophy of science, and Hartsock, working from Marxian materialism. “Standpoint theory,” a well-known product of this era, for example, demonstrates and is predicated on assumptions of epistemology’s masculinist construction. Code undertook similar work, focused more precisely on epistemology. In *What Can She Know?* — and revisited in later works — she establishes that the gender of the knower, as constructed, is epistemically significant: “[T]he invisible, voiceless, knowing subject in mainstream epistemology and philosophy of science has a voice after all: it is presumptively male.”⁷ Amid such core claims, Haraway developed her notion of situated knowledges, showing that knowledges not only do not transcend knowers, but that they are constitutive of embodied, socially-constructed subjects, and Tuana expands conceptions of materiality and embodiment in her own important contributions.⁸

For the balance of this essay, then, I take it as received and derived from the above and other works, that knowledge is constitutive of embodied knowers where each knower knows differently — and knows *knowing* differently — which necessarily renders knowledge, singular, into knowledges, multiple. Since knowledges are constitutive of embodied knowers, they cannot be “transmitted” intact from teacher to student; rather, knowledges are *constructed* relationally, most often in conversation with others. At the same time knowers are continually constructing themselves *as* knowers — making their own knowledges about knowing, itself.

Individual knowers are further differentiated by their “situatedness:” their dynamic socially-constructed subjectivities inflected by their relative power and privilege — or lack, thereof — and multiply-intersected: Historically, geographically, linguistically, culturally, sexually, and emotionally, among many possible intersecting radii. Thus, to the two-dimensionality of mainstream epistemology, epistemologies of “situated knowledges” might be understood as adding a third dimension — embodiment, which introduces the necessity of addressing differences and partiality in knowledge construction, claiming, justification, and performance. Stripped of the possibility of impartial, morally-neutral universal knowledge justification, knowledge construction practices are revealed as inherently political and moral — shot through with the possibilities of harm. Just as a three-dimensional cube adds vastly more complexity to a two-dimensional flat plane, epistemologies of situated knowledges add a third dimension to classroom contexts, acknowledging an exponentially expanded moral complexity. The cube’s multiply interconnected and intersected features of social location, power, privilege, and embodiment might beg comparison to a Rubik’s Cube, with its confounding complexity. Features that claim irrelevancy on mainstream epistemology find themselves at centre stage, especially as they are implicated in the constructions of knowledges and their attendant potential to dominate and oppress. When knowledges are understood as situated, partial and embodied, processes of knowledge construction involve inherently moral and political considerations. These introductory sketches set the stage for my brief use of Code’s “ecological thinking” in re-visioning contexts of education.

EDUCATIONAL CONTEXTS AS “EPISTEMIC ECOSYSTEMS”

In her fourth and most recent book, *Ecological Thinking: The Politics of Epistemic Location*, Code refines and extends her lifework in epistemological research. As a way of grounding what follows, I quote her here, at length, from her introduction to this work:

The picture I now present is of an epistemic subjectivity and agency socially–culturally learned and practiced, for which community, ecologically conceived, is a condition sine qua non for the production, circulation, and acknowledgment of claims to know. Its articulation in the language of ecology...is intended to unsettle assumptions about isolated, abstract, formal knowledge claims advanced and evaluated in isolation from their circumstances of their making and the concrete conditions of their possibility and from their consequent situational effects. My thesis is that even the punctiform “S-knows that-p” knowledge claims of exemplary status in orthodox Anglo-American epistemology can be articulated, heard,

and enacted only by knowers inculcated into a form of life...where conditions for their articulation and acknowledgement are already in place. (*ET*, viii-ix)

Although Code does not address formal education in this, or any of her books;⁹ she nevertheless invites the theoretical application of her concept of ecological thinking to other contexts:

[E]cological thinking...is a revisioned mode of engagement with knowledge, subjectivity, politics, ethics, science, citizenship, and agency that pervades and reconfigures theory and practice. It does not reduce to a set of rules or methods; it may play out differently from location to location; but it is sufficiently coherent to be interpreted and enacted across widely diverse situations. (*ET*, 5)

I suggest that Code's ecological model may indeed serve well to inform and "re-view" the epistemological contexts of education. Her use of the language of ecology acknowledges the "reciprocally constitutive effects" of "text and context," such that "context" is not simply the box within which knowledge is constructed, but it is also intimately implicated in the construction. On mainstream epistemology *the* educational context constitutes the shell, the organizing structure, within which teaching and learning takes place. It shapes the educational process through the imposition of institutional restraints and conditions, but the knowledge being taught and learned transcends that context. The latter does not inform or affect knowledge qua knowledge being taught/transmitted and learned/received, but rather serves only to focus and concentrate the epistemological activities of teachers and students. On Code's ecological model, however, the ingredients of educational contexts — necessarily multiple — would be understood as *constitutive* of knowledges constructed within them — as pre-existing "conditions for their articulation and acknowledgement," as quoted, above. Knowledges would be understood as developing through students', teachers', institutions', curricula's, and parents' interrelationships and conversations in contexts where power and privilege operate visibly and invisibly. These contexts would include the "metaphorics, images, symbolisms" that "work to shape and govern possibilities of being, thinking, [and] acting" (*ET*, 7). Ecological thinking assumes no separations between context and the elements "contained" by it; rather

knowledge is made, negotiated, circulated...where the nature and conditions of the particular "ground," the situations and circumstances of specific knowers, their interdependence and their negotiations, have claims to critical epistemic scrutiny equivalent to those of allegedly isolated, discrete propositional knowledge claims. In its approach to knowledge, it works with affinities, analogies from location to location, imaginatively and interpretively discerned. (*ET*, 5-6)

Code's ecological thinking, then, could rearticulate contexts of education as interactive, interdependent, transactional epistemic ecosystems, where "epistemic" involves the construction and enactment of embodied — situated — knowledges.¹⁰

NATURALIZED EPISTEMOLOGY

Via this ecological model, Code is adopting/adapting a "naturalized epistemology," a way of locating "epistemic inquiry analogically, within specific practices and institutions where people produce knowledge and from which they enact its effects" (*ET*, 67). She eschews "essentialized conceptions of science and nature,"

however, wary of the tendency of these to take on “self-fulfilling, self-perpetuating qualities that foster illusions of sameness” (*ET*, 68). Code proposes naturalized epistemology as constitutive of an instituting social imaginary,¹¹ setting it against the mainstream epistemological rubric, “S-knows-‘that-p,’” which, in order to justify knowledge “worthy of the name,” necessarily reduces knowledge claims to this formulation. On this model — which has held “pride of place in mainstream twentieth-century theories of knowledge” (*ET*, 98) — the location, subjectivity and particularities of knowers are effectively regarded as impediments to knowing. Against this model, Code first brings the work of Rachel Carson and her early — and hotly contested in its day — ecological science.¹² For Code, this relatively new science represents the rare example of empirical work that places the scientist on the ground amid the particularities and minutiae that legitimize, rather than weaken, substantiating knowledge claims; that include the complicating and contesting details that resist reduction to a propositional formulation. Similarly, by situating human knowers in their natural ecological setting, Code establishes the epistemic terrain for a naturalized epistemology of ecological thinking.

Attempts to naturalize epistemology are not new. Code recognizes W.V.O. Quine’s work on naturalizing epistemology as a noteworthy first step, in that he argued for knowledge acquisition as trait of the biological human, rather than of a disembodied subject.¹³ However, Quine cannot escape the reductive artifice of the laboratory in studying the abstract human knower, who remains, according to Code, “a faceless, dispassionate, infinitely replicable ‘individual’ who *knows* only when he suppresses interdependence both situational and personal, along with affect, meaning and indeed all aspects of his sociality and individuality” (*ET*, 79). Against this model of knowers as “medium-sized-information-generating objects,” Code proposes an ecological naturalism that addresses knowers as fully embodied, socially/politically/geographically located and living interdependently, societally, with others (*ET*, 82). Neither knowers nor their knowledges can be separated from their respective *habitus*, which Code describes as “embodied history” and/or:

a sense of one’s place, with the cumulative totality of sedimented cultural and personal experiences a human being carries as he or she moves about in a social space and in relation to the power structures that shape such places. (*ET*, 28)

Naturalized epistemology, on Code’s description, reflects the natural ways that knowledge is produced and enacted; it is constitutive of knowers and their ecological milieus. In Code’s words, “ecological naturalism starts from the — *natural* — dependence of knowledge production upon and within human and human–nonhuman interaction, in adult lives as in infancy and childhood” (*ET*, 91).

The idea that humans are naturally epistemically interdependent is inconsistent with the valorized autonomy of mainstream epistemology. Code claims mainstream epistemology’s idealized autonomy is responsible for producing the imaginary of *mastery* that pervades our language of human development: On mainstream epistemology humans *conquer* nature; they conceive cognitive development in terms of “mastering” knowledge and information, of “mastery over” one’s physical/social/natural surroundings, over one’s emotions, over one’s body (*ET*, 134). The language

of mastery permeates naming, normalizing, and naturalizing our experiences of the world and the Other. Against this imaginary Code endorses the contention that “all actions, all meanings, occur and indeed are *made* within social practices” (*ET*, 137), between “second persons.”¹⁴ Thus Code describes development-as-knowers in terms of second-person *embodied* knowers, situated — habitus et al — ecologically, producing knowledges locally, with an instituting social imaginary that not only admits of the subjective/affective in the construction of knowledge, but is enriched by it. Aided by a *negotiating* empiricism that allows for contesting and interrogating otherwise uncontested knowledge claims, and that respects testimonial evidence and knowledges constructed through the interplay, dialogue, and specificities of an ecological location, these knowers can “know well” through their location within it. Most importantly, Code offers an instituting social imaginary of ecological thinking as providing inherent normative possibilities for knowing well and for living well together. However, she cautions that:

[e]cosystems,...both metaphorical and literal — are as cruel as they are kind, as unpredictable and overwhelming as they are orderly and nurturant, as unsentimentally destructive of their less viable members as they are cooperative and mutually sustaining; and ecological thinking is as available for feeding self-serving romantic fantasies as for inspiring socially responsible transformations. So if it is to avoid replicating the oppressions endemic to orthodox epistemologies and ethical theories, ecological thinking requires principled adjudication of incompatible claims, effective deliberative practices for enacting them, and the vigilant monitoring on which most revisionary social movements depend to promote and preserve their fragile gains while countering threats of renewed oppressions. (*ET*, 6)

Thinking ecologically, therefore, we are *morally* obliged to “know well” so that while enacting our knowledges we enhance the habitability of our ecosystem, just as in not knowing well we tend to do the opposite. We are also required to acknowledge and negotiate differences that would be central to informing “acceptable” education practices. The ecologically modeled conception of knowledge could serve educational models well, because it does not merely *accommodate* differences, it is *predicated on multiplicity*:

[I]ts effectiveness requires responsible intermappings (from region to region), as well as internal mappings. *negotiating differences* is a prominent item on its agenda. Such negotiating is reliant upon activities of public, democratic conversations — debates — which aim, interpretively, imaginatively, and critically, to know differences of subjectivity and agency, habitus and ethos, circumstance and history; honoring them where practical wisdom (*phronesis*) and deliberation show them worthy of preservation; interrogating and contesting them where necessary; yet neither in stasis nor in isolation. (*ET*, 35–36)

As I understand Code, were I to transfer the ecologically modeled conception of knowledge to contexts of education, attention to the details and complexities that attend to situated knowers would be repositioned from the mainstream epistemological model. Whereas, on the latter, the specificities of individual students, as one example, are viewed as impediments to an educational process that results in universally-testable knowledge, on Code’s model differences would be positioned front and centre. Consistent with epistemologies of situated knowledges, ecological thinking *requires* attention to differences of subjectivity and agency as well as to the consequences of knowledges produced in these “epistemic ecosystems” in relation to other persons within one system and among other differently situated systems.

This same sensitivity to detail would apply to determining what distinguishes “this contestable practice...this injustice...this problem of knowledge...from that one” (which could inform the interminable debate on indoctrination in philosophy of education, for example) (*ET*, 18). Negotiating such differences will not be a purely subjective exercise, however, as Code insists on respecting the important role empirical science plays in knowledge construction. An ecologically-modeled epistemic imaginary would “have often to combine empirical attention to observational evidence with examining local crises, specific harms, social issues, problems with wider patterns of power and privilege, oppression and victimization” (*ET*, 18).

TOWARD AN “INSTITUTING” EPISTEMIC SOCIAL IMAGINARY

In *Ecological Thinking*, Code employs the concept of an “instituted social imaginary” which is sometimes taken as “common sense.” Code describes it as resembling a Kuhnian paradigm but larger in scope, not about “how knowable items in successive historical periods are spread out before *the* observant knower,” but as being about the “often-implicit but nonetheless effective systems of images, meanings, metaphors, and interlocking explanations-expectations within which people, in specific time periods and geographical-cultural climates, enact their knowledge and subjectivities and craft their self-understandings” (*ET*, 29). On her account, the master narrative, predicated on mainstream epistemology, infuses the instituted governing social imaginary of our time, carrying within it the “structural ordering of institutions of knowledge production;” it sets the limits of what humans can know and determines the “place of knowledge in the world” (*ET*, 30). Against this instituted imaginary, Code brings the notion of the instituting imaginary. Such an imaginary incorporates a capacity for continuous re-visioning, self-questioning, for imagining counter-possibilities to the instituted imaginary. In calling for a new instituting imaginary, Code aims for not merely reconfiguring the instituted imaginary, but for a *re-imagining* of the “whole way of thinking about the diverse positionings and responsibilities of knowing subjects, the ‘nature’ of knowledge” (*ET*, 61).

Code claims that an instituting “epistemic–moral–political imaginary” could be initiated on an “ecologically modeled conception of knowledge and subjectivity” that “*situates* the negotiations a renewing epistemology requires.” Importantly, Code claims that the model of knowledges as constructed by situated knowers reflects how we make our knowledges, day to day — including those ostensibly predicated on detached objectivity. Legal judgments, for example, “are often informed by tacit yet powerful beliefs about what ‘women in general’ want and are like, how domestic arrangements work, what the reasonable man would think or do” (*ET*, 107). Code claims that judges regularly extrapolate from their own experiences, “shaped by the specificities of a privileged socioeconomic and frequently male-gendered position,” yet they are presumed to occupy an “impartial seat” (*ET*, 107). At issue is our misinterpretation of knowledge as understood on mainstream epistemology, which attempts to explain more than it can by “super-imposing a ready-made cognitive grid upon events and situations, tucking in the bits that spill over, letting aberrations fall through the cracks” (*ET*, 18). When mainstream

epistemological claims are subjected to interrogation, Code claims, we find they are informed by the particularities of the claimants and that “even the most venerable of facts is vulnerable to analysis that ‘puts it in its place,’ doubly, to evaluate it there, *in media res*” (*ET*, 117). I now suggest ways of understanding contexts of education that are “put in their place.”

EDUCATIONAL EPISTEMIC ECOSYSTEM

I offer, then, one possible reconceptualization of contexts of education as formal *epistemic ecosystems* in which teachers and students construct and enact knowledges. Although it is tempting to suggest that this epistemic ecology is *like* a natural ecology — say, a prairie ecosystem — I suggest Code would insist that it *is* a natural ecosystem. She challenges the separation of humans from nature, claiming there exists a “remarkable ignorance of what ‘we’ naturally are: of where nature begins and cultural or other artificial accretions end; indeed of how the idea of a nature ‘in itself’ or ‘as such’ behind the accretions could be remotely plausible” (*ET*, 117). In other words, it remains to be shown how a school, as the construction of humans, is any less natural than a nest, as the construction of birds. With that caution in mind, I imagine the interconnectedness and interrelationality of myriad features of an educational ecosystem as similar to that of a prairie ecosystem, for example, where each animal — this grasshopper, that red-tailed hawk, this human rancher, that prairie gopher, plus thousands of others in their nearly infinite particularities — interrelates with each other and with the winds, rain, snow, earth, grasses, shrubbery, sunshine, darkness, moonshine, and thousands of other elements. Now consider an educational epistemic ecosystem that involves that teacher, this student, that principal, this room, that chalkboard, this textbook, that computer, these rules, those curricula, this society, that religion, plus thousands of other features in their nearly infinite particularities, constructing knowledges interdependently, dynamically, where removing or changing one element changes them all, to however a minute degree.

Per Code, acceptable education as predicated on mainstream epistemology may be interpreted as operating within an instituted social imaginary, which, among other features, is “about the scope and limits of human knowledge and the place of knowledge in the world; about the structural ordering of institutions of knowledge production” (*ET*, 30). On the mainstream conception, acceptable epistemic educational practices must reflect their responsibility to the instituted imaginary. However, on Code’s work epistemic duties would include challenging the instituted epistemic social imaginary, having students and teachers question their roles as epistemic agents within this imaginary, as well as the structures through which their knowledges are constructed. According to Code, instituting social imaginaries “interrogate the social structure to destabilize its pretensions,” by bringing “critical-creative activity” and “[i]maginatively initiated counterpossibilities” (*ET*, 31).

CONCLUSIONS

I suggest that used as a lens through which to view contexts of education, Code’s ideas can be understood as requiring the epistemic work of education to be that of an instituting epistemic social imaginary in which sedimented notions of what

constitutes knowers, knowledge, teaching, and learning are troubled. Such an instituting imaginary would imagine and legitimate new ways of knowing and new ways and roles of knowers, while at the same time bracketing self-limiting assumptions of the instituted imaginary. Perhaps most importantly, these new educational epistemic ecosystems would trouble the mainstream epistemological conditions under which public knowledge can be contested, requiring students and teachers to reflect on the moral responsibilities unique to each of them as situated knowers relative to the potential harms that could result from claiming, justifying and performing their knowledges.

I believe Code's work and that of her many colleagues bring compelling challenges to mainstream epistemology's instituted educational epistemic imaginary and its reductionist quest for the fictional necessary and sufficient conditions to justify a one-size-fits-all universal educational epistemic context. I suggest that the kind of work epistemologists like Code have been advancing for decades deserves greater attention within philosophy of education and I trust that future special publications focused on epistemology and education will cast a wider net to include their revolutionary accomplishments.

1. Harvey Siegel, "A Symposium on Epistemology and Education: Introduction," *Educational Theory* 58, no. 2 (2008): 123.

2. Siegel, "A Symposium on Epistemology and Education."

3. Lorraine Code, *Ecological Thinking: The Politics of Epistemic Location*, ed. Cheshire Calhoun (Oxford: Oxford University Press, 2006); Lorraine Code, *Epistemic Responsibility* (Hanover, N.H.: University Press of New England, 1987); Lorraine Code, *Rhetorical Spaces: Essays on Gendered Locations* (New York: Routledge, 1995); and Lorraine Code, *What Can She Know?* (Ithaca, N.Y.: Cornell University Press, 1991). *Ecological Thinking: The Politics of Epistemic Location* will be referred to as *ET* for all subsequent references.

4. This is a widely used term among feminist epistemologists to describe, in very general terms, epistemology as typically understood and "done" in mainstream philosophy. Code has occasionally termed it "malestream" epistemology in reference to its masculinist origins.

5. See Maureen Ford, "Situating Knowledges as Coalition Work," *Educational Theory* 57, no. 3 (2007).

6. With the understanding that gender roles are constructed and not innate. Most feminist theorists will not accept essential definitions of gender.

7. Code, *Rhetorical Spaces*, 173.

8. A sampling of the works to support the preceding paragraph include: Donna J. Haraway, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective," in *The Feminist Standpoint Theory Reader: Intellectual and Political Controversies*, ed. Sandra Harding (New York: Routledge, 2004); Sandra Harding, "Rethinking Standpoint Epistemology: What Is Strong Objectivity?" in *The Feminist Standpoint Theory Reader: Intellectual and Political Controversies*, ed. Sandra Harding (New York: Routledge, 2004); and Nancy Tuana, "Material Locations: An Interactionist Alternative to Realism/Social Constructivism," in *Engendering Rationalities*, eds. Nancy Tuana and Sandra Morgen (Albany, N.Y.: SUNY Press, 2001). For references to a broad range of extant work in feminist theory compiled by 267 feminist contributors, see Lorraine Code, ed., *Encyclopedia of Feminist Theories* (New York: Routledge, 2000).

9. In any substantive way. She includes a brief reference to teaching in *Rhetorical Spaces*, Op. cit., 184.

10. Code leans heavily on Donna Haraway's description of situated knowledges. See Haraway, "Situated Knowledges."

11. Explained in more detail, later in this essay.

12. Code cites several of Rachel Carson's works, including *Silent Spring* (Boston: Houghton Mifflin, 1962).
13. Code cites W.V.O. Quine, *Ontological Relativity and Other Essays* (New York: Columbia University Press, 1969), as well as Quine's essay, "Natural Kinds," in Hilary Kornblith, ed., *Naturalizing Epistemology*, 2nd ed. (Cambridge, Mass.: MIT Press, 1994).
14. The idea that "first persons — 'I'" — are better represented by "second persons — 'we'" — is drawn from the work of Annette Baier, who suggested that persons are the product of interrelations with other persons and thus all are "second persons" to each other. See: Code, *Rhetorical Spaces*, Op. cit., notes, 125.