

STATUS QUO, CONFLICT, & INNOVATION IN THE ESS CURRICULUM

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Abigail Jahiel, Illinois Wesleyan University (ajahiel@iwu.edu)

Eric Kennedy, Arizona State University (ericbkennedy@asu.edu)

Michael Maniates, Yale-NUS College, Singapore (michael.maniates@yale-nus.edu.sg)

Jim Proctor, Lewis & Clark College (jproctor@lclark.edu)

Richard Wallace, Ursinus College (rwallace@ursinus.edu)

SUMMER 2014: MOTIVATING QUESTIONS

- Is there a status quo in today's ESS curriculum, and if so, how was it achieved?
 - What remain (or have emerged) as some of the major conflicts regarding the ESS curriculum, and how shall we understand and address these conflicts?
 - As we consider the ESS curriculum in future, what are some possible and desirable paths for innovation?
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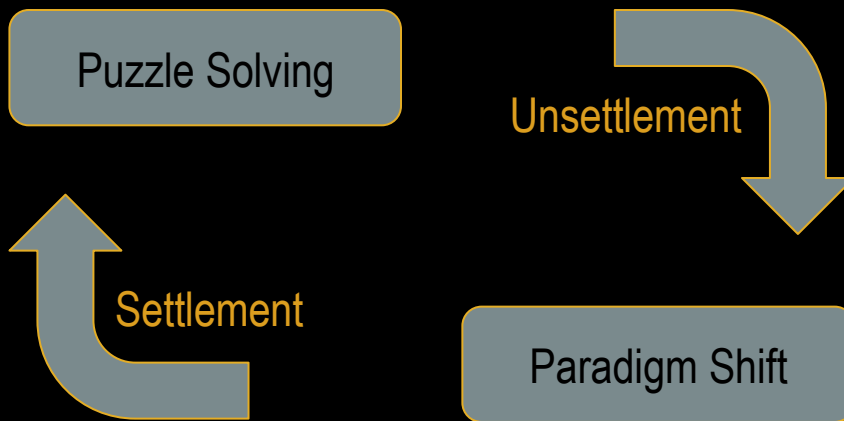
JUNE 2015: JESS MINI-SYMPOSIUM

- Introduction: unsettling the ESS curriculum (James D. Proctor, Jennifer Bernstein, Richard L. Wallace)
- Discursive diversity in introductory environmental studies (Eric B. Kennedy, Jacqueline Ho)
- Heterodox environments: pre-undergraduate ESS experiences beyond the AP (Jonathan D. Lepofsky)
- Fifteen claims: social change and power in environmental studies (Michael Maniates, Thomas Princen)
- Theory in, theory out: NCSE and the ESS curriculum (James D. Proctor)
- Between the local and the global in the Age of the Anthropocene: the case for the “regional” in environmental studies and sciences (Abigail R. Jahiel)
- Teaching through objects: grounding environmental studies in things (Paul Robbins, Sarah A. Moore)

POST-PUBLICATION STEPS

- This session!
- Your responses and author replies in future *JESS* issue
- We welcome your ideas toward additional steps

SETTLEMENT AND UNSETTLEMENT IN ESS



Kuhn TS (1962) The structure of scientific revolutions. University of Chicago Press, Chicago

ESS: EPISTEMIC ENORMITY

Yet interdisciplinary integration is theoretically demanding. Its complexities involve issues of *inclusivity* and *coherence*, i.e., the breadth and integrity, respectively, of the interdisciplinary mix....

The challenge of inclusivity demands that ESS practitioners clarify which disciplinary fields are requisite elements....Inclusivity, however, is not enough. Once we admit a variety of disciplines..., we need to integrate them in some coherent fashion, and the greater the inclusivity the greater the challenge of coherence....

In short, as exciting as our identity as an integrative interdiscipline may be, we have a considerably more difficult set of theoretical challenges to address than most disciplines, and we had better get started. (332–3)

Proctor, James D., Susan G. Clark, Kimberly K. Smith, and Richard L. Wallace.
2013. "A Manifesto for Theory in Environmental Studies and Sciences." *Journal of
Environmental Studies and Sciences* 3 (3): 331–37

DISCURSIVE DIVERSITY

- The first paper, “Discursive Diversity in Introductory Environmental Studies” by Jacqueline Ho and Eric Kennedy, offers a critical student perspective, influenced by their personal undergraduate experiences and suggesting possibilities for broadening environmental problem framings and policy prescriptions in undergraduate ESS courses. Through a survey of introductory ESS syllabi, they argue that there exists an overarching unidimensionality of theoretical perspectives within the curriculum. Ultimately, they advocate for increased attention on intellectual diversity and critical thinking, as well as reflection on the ideological underpinnings of environmentalism and ESS generally.

HETERODOX ENVIRONMENTS

- The next contribution, “Heterodox Environments: Pre-Undergraduate ESS Experiences Beyond the A.P.®” by Jonathan Lepofsky, presupposes that many students entering undergraduate ESS courses have already been primed via high school curricula such as the Advanced Placement (AP) Environmental Science course. Using Foucault’s interpretation of how modes of power become legitimized, he argues that discourse treats “the environment” as an object upon which humans ultimately act, echoing Kennedy and Ho’s accusation that the ESS curriculum lacks recognition of the epistemological roots of the environment. This conceptualization manifests a positivistic theoretical approach and a pragmatic emphasis on science, math, technology, and engineering (STEM) education. He illustrates the argument in two ways: first, through a summary examination of the AP curricula, and second, through a case study of the Carolina Friends School’s 9th grade ESS curriculum. Lepofsky advocates for a heterodox approach by demonstrating how the environment can be simultaneously studied and critiqued, and makes a case for maintaining epistemological diversity at the high school level in order to more adequately prepare students for college.

FIFTEEN CLAIMS

- In “Fifteen Claims: Social Change and Power in Environmental Studies,” Michael Maniates and Thomas Princen argue that ESS curricula tend to endorse implicit models of power deployment and social change. Via an open-ended list of 15 such claims (e.g., “Change just happens,” “Be green, be political,” or “Good science, good policy”), they caution against the tendency within ESS to deploy a wide and contradictory range of these models without careful contextualization. To illustrate their argument, they provide a case study of ESS student workshops focused on competing claims of social change, observing that during the workshops, students became aware of the diversity of claims, hesitated to prioritize one theory over another, and reflected on the ways in which they lacked the ability to critically compare the competing claims. Ultimately, the workshops support the authors’ advocacy of more explicit consideration, coupled with acknowledgement of the inherent multiplicity, of competing claims of social change and power deployment.

THEORY IN, THEORY OUT

- Jim Proctor's essay, "Theory In, Theory Out: NCSE and the ESS Curriculum," focuses on a recent, empirically based National Council for Science and the Environment (NCSE) report, unpacking its theoretical assumptions and implications. Through breaking the report into three successive conceptual steps ("The ideal ESS curriculum builds on diverse forms of knowledge"; "This diverse knowledge can be organized into major curricular models"; and "Sustainability integrates these curricular models") and analyzing the methodological basis for each step in the NCSE report, Proctor argues that the report's data-driven appearance masks far-reaching assumptions about the ESS field's diversity, organization, and ultimately its ability to be integrated under the umbrella of sustainability. He concludes that the NCSE report provides important empirical findings for discussion, yet its larger claims are far from settled and reframes the report's three steps into future-oriented questions.

BETWEEN LOCAL & GLOBAL

- In “Between the Local and the Global in the Age of the Anthropocene: The Case for the ‘Regional’ in Environmental Studies and Sciences,” Abigail Jahiel notes that ESS courses often emphasize global- and local-scale processes which neglecting “...the disparate conditions of humanity in various parts of the world, and the relationship of these conditions to other places and to the environment,” evidencing this argument via a brief review of popular textbooks and recent curricular surveys. Jahiel examines literature in geography and political ecology to define this mediating regional scale as both territorial and relational. She demonstrates the usefulness of the regional perspective by using Asia as a case study, looking at land-use cover change and advocating for an increased amount of attention paid to Asia in ESS courses. Jahiel concludes by offering practical ways of incorporating a regional perspective for ESS practitioners, e.g., via explicating how a particular environmental issue such as climate change unfolds differently in various parts of the world.

TEACHING THROUGH OBJECTS

- Finally, in “Teaching through Objects: Grounding Environmental Studies in Things,” Paul Robbins and Sarah Moore argue that introductory ESS courses reflect an outdated narrative structure. Rather than accept generalized claims about scarcity or the universality of environmental problems, the authors make the case that teaching through objects shifts the focus from environmental problems to the process through which society might craft positive environmental futures. Through this object-based approach, students are able to unpack the social, ecological, economic, and ethical underpinnings of seemingly banal commodities and ultimately wrestle with concepts critical to environmental studies that transcend the object itself. Robbins and Moore show how teaching through objects avoids the apocalyptic framing of environmental problems, incorporates a myriad of theoretical approaches, and encourages students to envision positive relationships between humans and the biophysical environment. Challenges to this approach, and how they might be overcome, are presented.

MOTIVATING QUESTIONS REVISITED...

- Status quo
 - Unidimensionality in intro ESS (Kennedy & Ho)
 - AP Environmental Science precursor (Lepofsky)
- Conflict
 - Assumptions re. social change (Maniates & Princen)
 - Sustainability as axis of differentiation (Proctor)
- Innovation
 - Regional approaches (Jahiel)
 - Objects (Robbins & Moore)