Application for Ashby Dialogue Grant

Title of proposed inquiry: Feminist Theory and Science

Funds requested for:
- Fall semester only;  
- Spring semester only;  
- Academic year

Faculty coordinator:

Name: Elizabeth L. Keathley; Department: Music Studies & WGS

Other faculty participants:

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<tr>
<th>Name</th>
<th>Department</th>
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<tbody>
<tr>
<td>Heidi Carlone</td>
<td>Curriculum &amp; Instruction (Science Education)</td>
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<tr>
<td>Nadja Cech</td>
<td>Chemistry</td>
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<tr>
<td>Cerise Glenn</td>
<td>Communication Studies and WGS</td>
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<tr>
<td>Hephzibah Roskelly</td>
<td>English &amp; WGS</td>
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Student participants. List names and majors, if known. If student participants have not yet been identified, explain how they will be selected and the mix of undergraduate and graduate students that is planned.

Gianina Coturri, PhD student, English Literature (Literature & the Environment)

Two graduate students of Science Education

7–8 undergrad students, including Christina Fernández, recent student of Honors course in Women’s Environmental Writing.

Interested and committed students will be identified by faculty of recent science courses and WGS and Honors courses with a science component. They will be invited to submit a brief statement explaining why they would like to participate, and selection will be made on the basis of those statements.

Names and institutions of proposed visitors (specify payment amount for each):

Dr. Karen Barad, University of California Santa Cruz $2000.00

Attach a 2-3 page narrative description of the proposed inquiry and submit the completed application to Associate Dean Bob Hansen, Room 100 Foust Building, Campus. Deadline for applications is May 1, 2014.
The series of Ashby Dialogues we propose responds to the 2014–15 celebration of the anniversary of Galileo by asking historical, theoretical, and practical questions about the relationships between gender and science. Six dialogues throughout the semester will focus on questions and readings in scholarly and popular literature as well as interaction with a guest speaker, physicist Karen Barad. The planned trajectory of the dialogues accounts for present and historical trends, theories, and practices regarding gender and science; interrogates the sometimes vexed relationship between feminist theory and science; and proposes alliances among feminist, queer, postcolonial, and scientific theories that can lead to socially just outcomes. We plan to address topics on the following provisional list:

1. How and why are science and technology currently gendered? What are the implications of that gendering? How might the gendering manifest in patterns of employment, the kind of science that is done, how it is done, and how science is perceived? What academic and/or social structures tend to reinforce or erode that gendering? We might prepare for this dialogue by culling recent newspaper or magazine (including online) reporting, reading it not only for its content, but also its discourse, and perhaps reading or taking note of representations of women and men in scientific journals and professional newsletters, popular fiction, young people’s fiction, biography, cinema, and television programming.

2. How have historical women engaged science? What roles have they played, achievements have they won, and historical reception have they garnered? How have their posthumous reputations changed with new research? How do they appear now in standard narratives of science? Here we might consider highly visible individuals, such as biophysicist and X-ray crystallographer Rosalind Franklin (1920–1958) or physicist and chemist Marie Curie (1867–
1934), but also women engaged in alternative forms of scientific inquiry and medical practice, the practices of now anonymous women who worked in home astronomy labs in the early modern period, and women who have performed less visible roles in science, for example lab assistants and science writers, e.g. Oliva Sabuco de Nantes (16th-c. Spain), writer of the first history of natural science.

3. What counts as science, and who says? Is there or can there be scientific objectivity? Here our dialogue might be informed by reading “classic” feminist critiques of science, such as Sandra Harding’s Whose Science? Whose Knowledge? (1991) and Donna Haraway’s “Situated Knowledges: The Science Question in Feminism...” (1988), as well as critiques of these critiques.

4. What difference, if any, does it make to have female practitioners in science and technology? To use feminist methodologies? Theories and methodologies informed by postcolonial studies? For these questions we might read and think about Evelyn Fox Keller’s work on biologist Barbara McClintock (1902–92);1 Sandra Harding’s later work, such as Sciences from Below (2009); work by and about marine biologist Rachel Carson (1907–1964); and others.

5. How can science inform and/or explain feminist or queer theories? How does or can science serve social justice? Here we will read works written or recommended by Karen Barad, our invited guest. Barad, a theoretical physicist, is Professor of Feminist Studies, Philosophy, and History of Consciousness, and a Co-Director of the Science and Justice Training Program, at the University of California at Santa Cruz. Her publications

1 Some of Keller’s conclusions were later challenged by Nathaniel Comfort (2001).
include *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (2007), and “Nature’s Queer Performativity” (2012). Also relevant here are sociologist Alondra Nelson’s studies on African-American communities’ use of DNA testing to achieve medical and identity “recovery” goals.²

6. Positions, Insights, and New Directions: for the final dialogue, participants prepare reflection papers responding to the content of the preceding dialogues for presentation and discussion. Have our positions shifted? What insights have we gained? How will we apply our new insights?

Its focus on gender and science has already generated interest in this series of Ashby Dialogues among faculty and students in WGS, Environmental Studies, Education (Science Education), Sociology, English Literature, Languages Literatures and Cultures (Spanish and German), Nursing, Biology, and Chemistry. Karen Barad’s public lecture should also draw a large and diverse crowd. The issues the dialogues seek to illuminate range from the current and practical (women in STEM fields) to longstanding epistemological questions, providing a rich field of cross-disciplinary inquiry.

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² Nelson shows, for example, that in the 1970s the Black Panthers promoted DNA testing to address sickle-cell anemia, and African Americans have subsequently used DNA in court battles to authorize preservation of an unmarked slave burial site in New York.