

# Oocytes & Blood as Gifts & Commodities: A Transformative Case Study for Undergraduates That Promotes Ethical Reasoning

[Supported by NYSTEM #C026077] Alexa Riggs, B.A. Candidate, Research Assistant for Stem Cells Across the Curriculum Project  
Katayoun Chamany, Associate Professor of Biology, Eugene Lang College The New School for Liberal Arts, NY, NY

## Background:

With financial support from the New York State Empire State Stem Cell Board, faculty across the natural sciences, humanities, social sciences, and design collaborated to develop and implement a semester-length non-majors interdisciplinary course focused on the scientific, social, ethical, and legal dimensions of stem cell research (SCR). The course utilizes case-based teaching and learning methods that promote the development of an informed citizenry and future scientists that practice ethically responsible research. Case-based reasoning requires students to actively learn and experience the stages of ethical development, as outlined by cognitive theorist William Perry, to address stem cell-related controversies such as those surrounding egg procurement. To understand the scientific and social dimensions of this evolving industry, students explore resources spanning literature, government reports, scientific animations, timelines, and infographics to identify and understand the intersections of basic science, health psychology, feminist and disability rights discourse, social justice, bioethics, and health policy. Oocytes & Blood: Gifts & Commodities is one such case study designed to highlight the shift in practices and policies surrounding egg procurement and provide students with an opportunity to build an appreciation for different points of view. With social egg freezing no longer considered an experimental procedure, and news of ovarian stem cells, there will be an increasingly large number of excess eggs that can be sold, bartered, or donated for fertility purposes and SCR. Thus, the egg is a mobile entity transitioning between the clinic and the scientific lab, while the woman becomes more and more invisible. The case requires students to role-play various stakeholders and submit position statements and policy briefs that move them from an uninformed position of duality, for or against, to one that demonstrates ethical reasoning and draws on evidence from reproductive biology and utilizes a social justice framework.

## Questions:

1. Can students recognize and grapple with more than one ethical issue related to stem cell research including the health of the oocyte provider?
2. Can Role-Play and Case-Based Teaching and Learning promote a deeper appreciation and understanding of the risk and benefits of payment for human oocytes in SCR?
3. Which forms of media, including: film; news; advertisements; and research articles do students rely on most?

## Methods:

### Student Centered Pedagogies

#### The 7E Learning Cycle

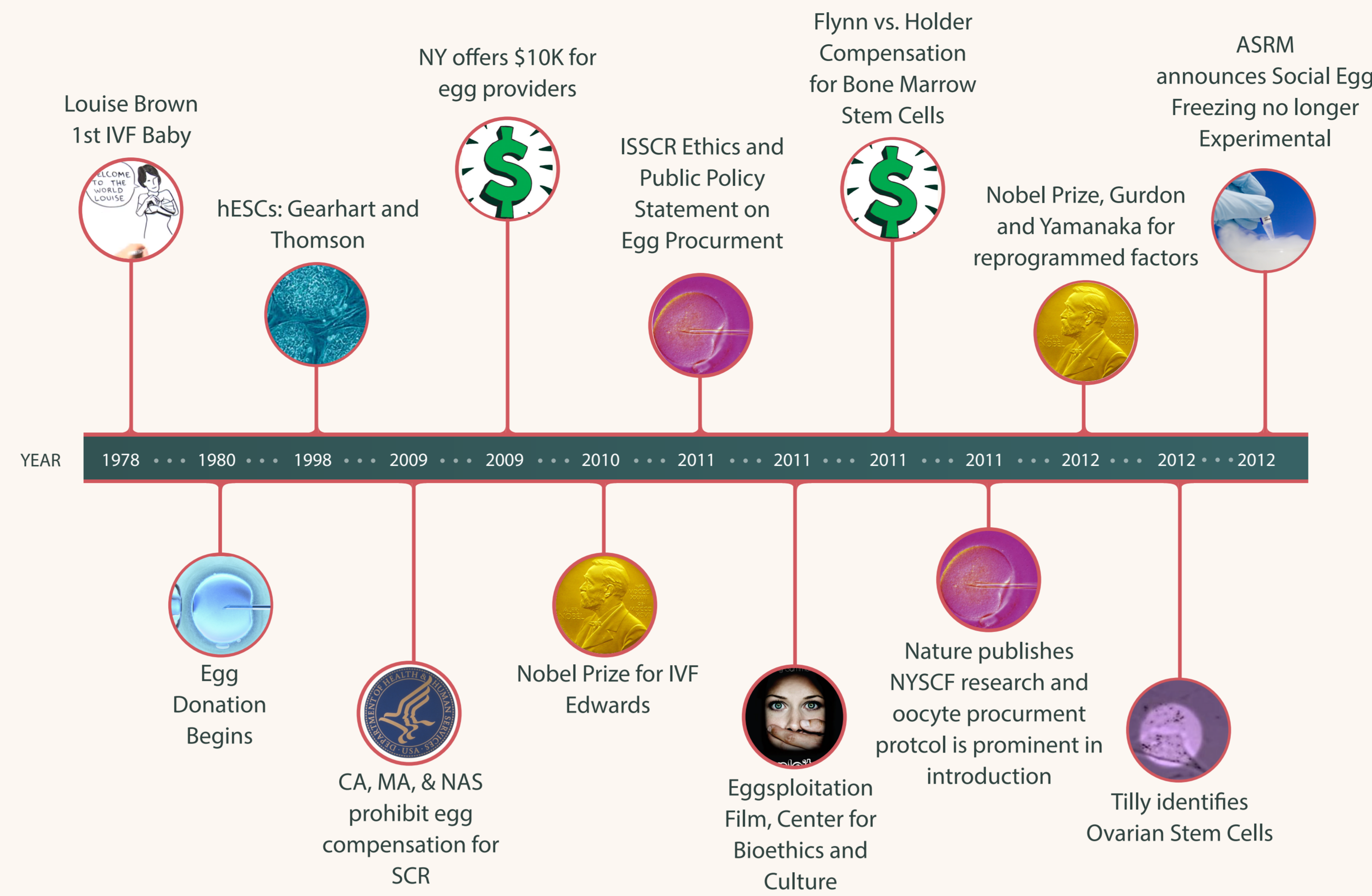
The 7E Learning Cycle encapsulates learning activities (*explore, explain, elaborate, evaluate*), associated with Problem-based Learning and Case-based Teaching as well as the additional activities associated with Critical Pedagogy, which places an emphasis on *eliciting* prior knowledge and misconceptions, acknowledging different value systems and lived experiences, questioning normative practices and policies, and *extending* the skills learned in a particular case to imagine systemic change that promotes social justice.

**Problem-based Learning (PBL)**  
*Traditionally used in science courses*  
Begins with a problem (John Dewey)

**Case Study Teaching**  
*Traditionally used in professional schools*  
Begins with a story (Lev Vgotsky)

**Critical-based Pedagogy**  
*Traditionally use with social justice issues*  
Begins with a question (Paulo Freire)

## Elicit & Engage:



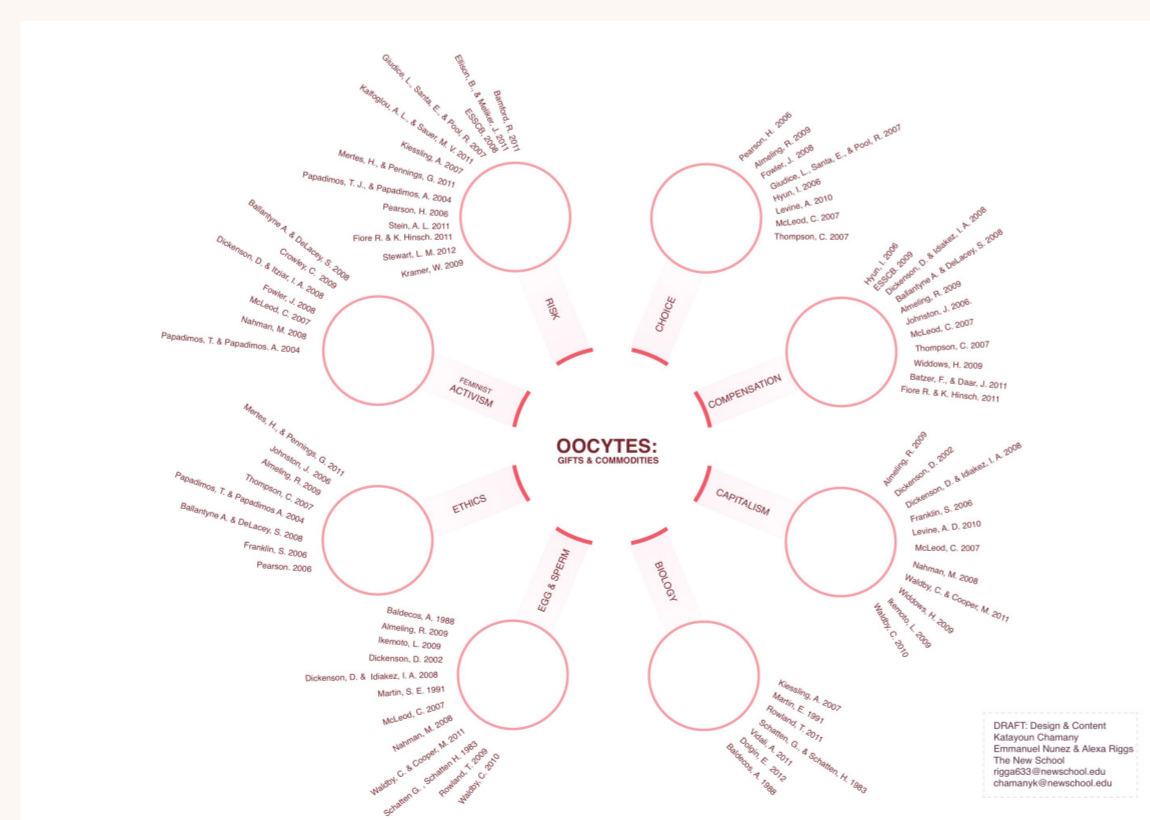
## Explore, Explain & Elaborate:

### Stakeholder Roles

| Name                               | Affiliation                          | Perspective  |
|------------------------------------|--------------------------------------|--|
| 1. Father Berg                     | Priest                               | Former NYSTEM Ethics Member; Westchester Institute for Ethics and the Human Person |
| 2. Feminists Choosing Life         | Pro-life Feminist                    | Challenged NYS, via Lawsuit  |
| 3. Jennifer Lahl                   | Feminist Activist                    | Director, Center for Bioethics and Culture, Eggsploration Film                     |
| 4. Dr. Robert Klitzman             | Physician/ Bioethicist               | NYSTEM Ethics Committee Member, Columbia University                                |
| 5. Brooke Ellison                  | Policy/Person Living w/ Disabilities | NYSTEM Ethics Committee  |
| 6. Dr. Michal Nahman               | Feminist Scholar/ Israel/Romania     | Professor of Sociology, University of West England                                 |
| 7. Dr. Catherine Waldby            | Feminist Scholar/Labor               | Depart. of Sociology & Social Policy, University of Sydney                         |
| 8. Son Bong Hee                    | Feminist Activist/ Korea             | Womenlink South Korea  |
| 9. Calla Papademas                 | Student Alumna                       | Stanford University  |
| 10. Dr. Howard Jones               | Fertility Physician/IVF              | Founder of Jones IVF Institute   |
| 11. ASRM Ethics                    | Professional Society                 | The American Society for Reproductive Medicine                                     |
| 12. Dr. Kevin Eggan or Dieter Egli | Scientist/NYSCF                      | CSO New York State Stem Cell Foundation/ Research Scientist                        |
| 13. Dr. Doris C. Woods             | Scientist/Ovarian SCs                | Vincent Center for Reproductive Biology, Mass General Hospital                     |
| 14. Dr. Robin Lovell Badge         | Scientist/Ovarian SCs                | MRC National Institute for Medical Research, England                               |

### Stakeholder Position Statement

500-Word Statement  
Two Questions to Others  
300-Word Counterargument



### Simulated Conference Session

50-60 Minute Dialogue  
10-minute Written Debrief  
10-minute Wrap Up



## Evaluate & Extend:

### Policy-based Critical Essay

Evidence  
Values  
Trade Offs

#### Student Quote from Essay

"The oocyte (egg) donation industry has found a new way to commodify the female body. Researchers realized the full potential of the embryo, which is totipotent, meaning it has the ability to become any cell type in the entire body. But before we can get an embryo we must have egg, and so there has been a high demand for eggs"

## Results:

### Mapping Student Use of Resources

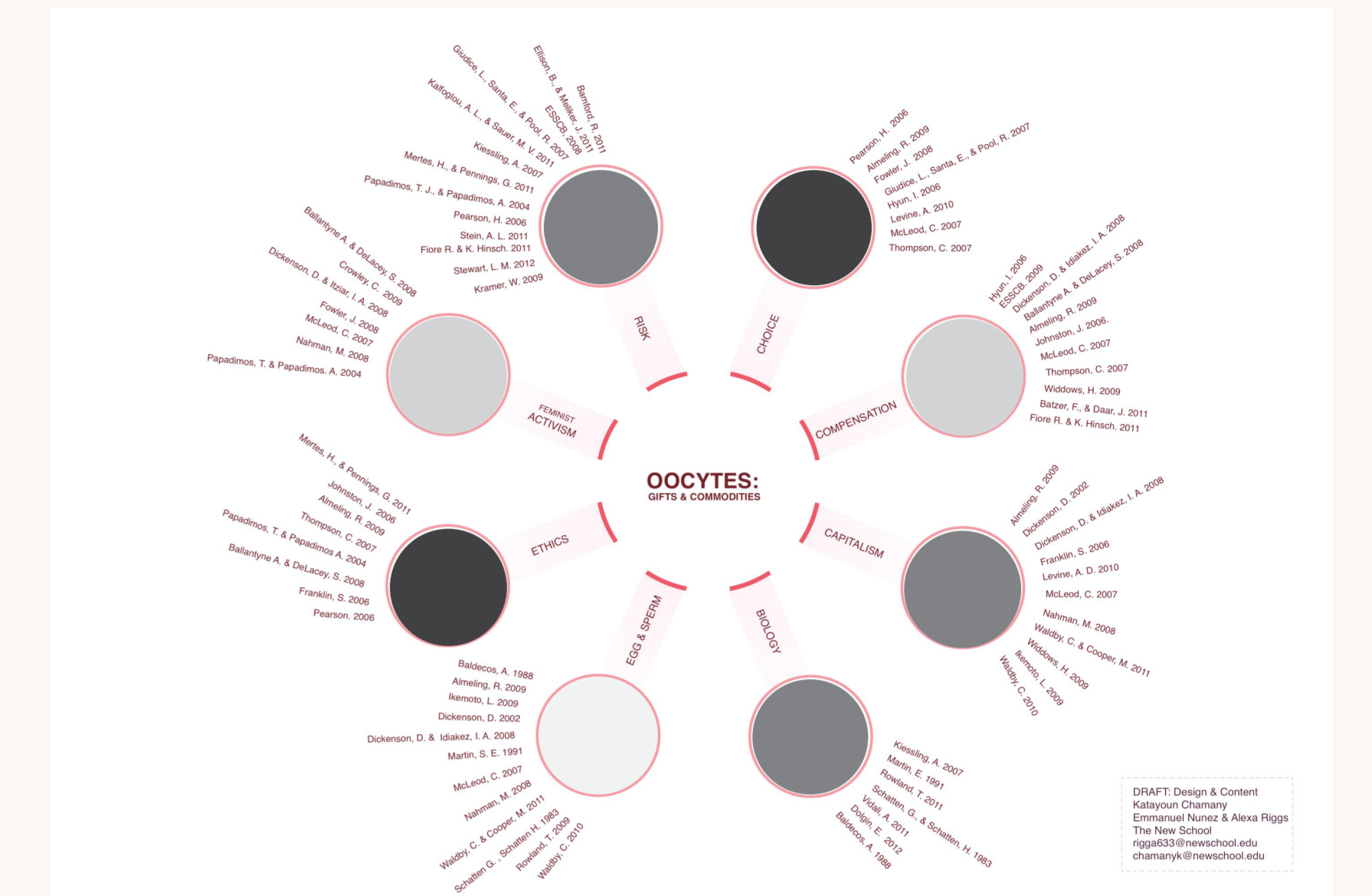


Figure 1  
Lecture Feminist Course (n=75)  
One lecture + One Recitation + 4 Resources

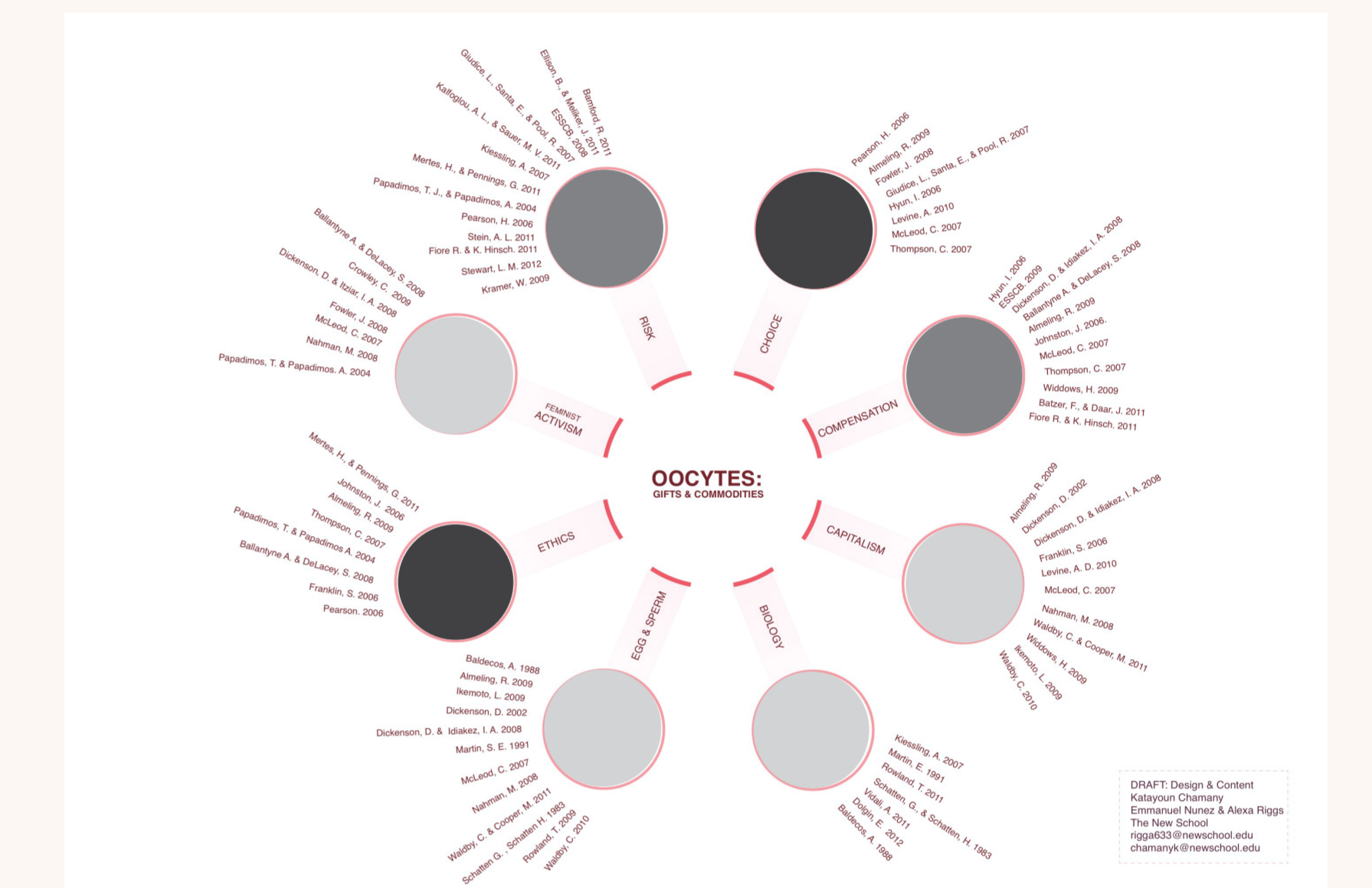


Figure 2  
Seminar Course (n=22)  
Six Seminars + Case Study + 22 Resources

## Conclusions:

Results suggest that students in the seminar course (+cases) are able to extend their learning and recognize more than one ethical issue related to SCR. Additionally, students in both seminar (+cases) and the lecture course (-cases) exhibit similar levels of analysis and engagement. Both student groups focused on ethics, informed consent, and choice. As anticipated, students in the seminar course (+cases) exhibited a wider range of critical responses drawing on resources focused on activism, oocyte compensation practices, and NY state SCR policies (figure 2). Though some students manage to integrate scientific and social evidence to arrive at a position on oocyte payment, many essays reveal a bias towards the social. Therefore, we are evaluating which combination of resources, stakeholders' roles, and prompts promote integration of the scientific and the social for students with diverse backgrounds and interests.

## Acknowledgements:

**Lisa Rubin**, Health Psychology/ Gender, The New School for Public Engagement  
**Ann Snitow**, Gender Studies, Eugene Lang College The New School for Liberal Arts  
**Adrienne Asch**, Ethics, Yeshiva University  
**Emmanuel Nunez**, Design, Parsons The New School for Design  
**Chelsea Briganti Alumna**, Product Design, Parsons The New School Design



National Center for Case Study Teaching in Science



SCIENCE EDUCATION FOR NEW CIVIC ENGAGEMENTS AND RESPONSIBILITIES



## For More Information:

For those interested in adapting curriculum can contact [chamanyk@newschool.edu](mailto:chamanyk@newschool.edu), and visit the Science Education for New Civic Engagements and Responsibilities (SENCER) Emerging Model Courses. The curriculum will be launched in its entirety in Fall 2013 on the NYSTEM education portal.

