Agenda

DAY 1

8:30-9:00 Breakfast on your own

9:00-9:30 Introductions

9:30-10:30 **Overview (15 minute presentations)**

- David Buss: Why students love evolutionary psychology and how to teach it
- Cristine Legare: Obstacles to understanding evolution
- Andrew Shtulman: Pedagogical techniques for teaching evolution
- John Opfer: Assessing students' understanding and misunderstanding of evolution

10:30-12:00: **Focus groups on obstacles to understanding evolution (20 minute discussion per question)**

- What are the cognitive biases that impede understanding evolutionary concepts?
- What are the ideological and religious objections to evolutionary theory?
- To what extent are the obstacles for understanding evolution in general and in the social sciences in particular overlapping or distinct?
- What does cognitive science have to offer biological science educators?

12:00-1:30 Lunch

1:30-2:30 Organization/schematization of teaching obstacles

2:30-4:00 **Focus groups on pedagogical techniques for teaching evolution (20 minute discussion per question):**

- What are good case studies for teaching the evolution of human cognition/behavior?
- Which evolutionary principles are most critical to cover? Which can be left out?
- Do the principles need to be covered in a particular order or in reference to particular organisms/traits (e.g., nonhumans first, humans second)?
- Should evolution be treated as one of many “tools” for understanding human cognition/behavior or as a unifying framework?

4:00-5:00 Discussion and synthesis of pedagogical techniques

6:00- Dinner

DAY 2

9:00-10:00 Breakfast on your own

10:00-12:00 **Focus groups on assessing students' understanding and misunderstanding of evolution (20 minute discussion per question)**

- How do you currently test students' understanding of the influence of natural selection (and/or sexual selection) on behavior?

- Suppose a strategy for teaching the evolution of the visual system were developed, and you wanted to test whether the new teaching strategy fostered more understanding (and less misunderstanding) than alternative approaches. In terms of evaluating an instructional strategy, what would you most like to see on an assessment? What content must be covered, and what is the form of the questions that you want to see?

- Ideally, lessons regarding the evolution of behavior engender knowledge that is lifelong and freely generalizable. How would you construct a test to best identify variation in the stability and breadth of students' understanding?

- In evaluating the validity of a measure, social scientists often examine whether measurement scores predict measurements of other relevant behavior. What other relevant behavior would you want to examine to determine which of the competing tests was the more valid measure of student knowledge?

12:00-1:30 Lunch

1:30-2:30 Discussion and synthesis of students' understanding and misunderstanding of evolution

2:30-3:30 **Focus groups on future steps (grant proposals, web site, research article)**

3:30-5:30 Group discussion on outputs

6:00- Dinner