I. C. Examine and evaluate how their own personal, historical, and cultural perspectives affect the discovery and generation of knowledge

Personal

- How do you get the flashes of insight that you need to do work?
- How does your mind work? Are you an auditory learner? A visual learner? A kinesthetic or tactile learner? Are you good with numbers? Are you good at visualization? Are you good at memorization?
- Do you prefer to collaborate or instead mostly work by yourself?

Stereotype Vulnerability

- White men performed worse on a test of mathematical abilities when reminded of Asian-Americans' superior performance in mathematics (Aronson, 1999).
- Asian women performed better on a mathematics test when 'cued' as Asians, but they performed worse when their gender identity was 'cued' (Shih, 1999).

Historical and Cultural

Discuss whether you or someone you know have ever experienced something similar to stereotype vulnerability as part of some kind of group (for example, gender, race, "good" or "bad" student in the past, older sibling, hair color, athlete, southern accent...) where external expectations from someone else (teacher, society, parents, friends...) affected your performance.

Math Gene

- *I was in Japan interviewing women scientists and engineers. I started out with an assumption about the role of math in keeping women out of engineering careers, because we know that girls are discouraged in the U.S. where too often math is considered not only gendered male but innate in a funny way. . . . When I referred to the math problem in Japan, nobody could figure out what I was talking about. . . . Nobody could fathom the idea that if learning higher math didn't come easily, you weren't supposed to continue. You were supposed to work harder. It became clear that Japanese women had very different career opportunities than men, but it had nothing to do with some concept of a math gene.* [Lazarus, 2001]