

# Appendix B: Interview Schedule

## 1. Interview 1:

**A. Introductory Questions:** The interview will start off with some general questions (listed in Section A.) about the participant's experience in the course, their thoughts about class readings and discussions. The intention behind these questions is to warm up the participant by getting them to discuss the course more generally before delving into more specific topics. This might also create an opportunity for the participant to pick their focus for the interview, or the issues that most matter to them.

1) What has been your experience taking this course?

a. What about the readings, the class discussions?

2) Why did you decide to take this course?

a. Have you ever taken a course like this before?

b. Did you previously know about the concepts or material we've discussed in class?

c. If your supervisor didn't tell you to take it, do you think you would have taken it?<sup>[2]</sup>

3) *As you may have remembered while listening to the Science Wars podcast, it is common for scientists to react negatively to some science studies research- why do you think that is?*

**B. Following up:** At this time, if the participant brings up a course concept or reading that stood out to them (for positive or negative reasons), I would pursue that by asking them follow up questions about it.

1) Could you tell me more about why you found the reading/concept/discussion interesting/noteworthy/confusing/?

2) What stood out to you about “x” (eg: thought collectives)?

**C. Reflecting:** However, if they don’t mention anything I can follow up on, I might ask them to reflect on some of the course concepts or class discussions.

1) In class, we read about and discussed Fleck’s “thought collectives” as a way to think about scientific expertise. What are your thoughts about this?

2) In preparation for one of our classes, we were asked to post on the discussion board in response to the prompt “Identify a thought collective you belong to and describe something that distinguishes this thought collective from another one”. In your response, you wrote “y”. Would you mind discussing this in some more detail?

3) Was there any course reading that stood out to you, either because you really agreed or disagreed with it? As an example, I really enjoyed Heather Douglas’s book on values because

she talks about the history of philosophy of science while I found Fleck's discussion of syphilis much too specific for my understanding.

- 4) In September, we read a lot about value-judgements in science and discussed how they play a role in our own work. What are your thoughts about this?

For 5-8, I would ask the questions depending on whether the participant suggests they found the texts particularly noteworthy or had a strong response to it. For instance, if they mention Schön's work during the interview, I might follow up with 6) since it interrogates their discussion post relating to his paper.

- 5) In the course reading by Heather Douglas (2009), she suggests that "the moral responsibility to consider the consequences of error requires the use of values in scientific reasoning. Yet the inclusion of social and ethical values in scientific reasoning seems to threaten scientific objectivity...We need an understanding of objectivity that reflects its important role in our language, the complexity of our use of the term, and the moral responsibilities of scientists." What are your thoughts about this?

- 6) One of our discussion posts was responding to Schön's paper on the use of metaphors and how it helps and steers our way of thinking. We were asked to pick a typical text from our field and look for metaphors, idioms or speech habits and consider how they might impact your way of understanding how the world works? In your response, you wrote "y". Would you mind elaborating on that further?

- 7) One of our discussion posts was responding to Sheila Jasanoff's paper on technologies of humility. "Instead of concentrating solely on improving our ability to predict (which in her words are 'technologies of hubris'), she says there is a need to "to make apparent the possibility of unforeseen consequences; to make explicit the normative that lurks within the technical; and to acknowledge from the start the need for plural viewpoints and collective learning." We were asked to consider how can these aims be achieved and how we could contribute? In your response, you wrote "y". Would you mind elaborating on that further?
- 8) In one of our classes (Oct 1), we had to list the 10 things we most value about knowledge. You said "x". Would you mind elaborating on that further?

**D. Confusing/Puzzling:** I think that an effective way to ensure that participants feel comfortable during the interview and not have to say things simply to seem agreeable may be to share some of my own answers to the questions, even when they seem critical of particular readings. Hopefully, that would encourage the participant to more honestly share their own views of the discussions. I might even bring up a reading or concept that I found confusing or puzzling.

- 1) I remember being a little confused by the end of Sheila Jasanoff's paper because I couldn't really understand how one would implement the solutions (eg: extended peer review) she was recommending, they seemed overly general to me. Were there any readings/discussions/concepts that confused or puzzled you?

**E.** Toward the end of the interview, I might ask them to reflect on the course as a whole:

- 1) Have your views of science changed over the course? If so, how?
  
- 2) Will you use anything from the course in your own research? What would that look like?
  
- 3) Do you wish we had read more or less of any specific author, or topic?
  
- 4) Is there some topic you wish we had covered? An activity you wish we had done or that would have been helpful in understanding the concepts better?

**F.** I might also ask a question relating to the card-game we played during the first class:

- 1) *Think back to the card game from the first class. If you were to redo it now, would any of your answers have changed? Which ones? Why? What caused you to change your answer(s)?*

**G.** Or a question about the epistemic values exercise:

- 1) *Think back to the class activity where we listed the values most important to us in research. Do you still agree with all the items on your list "x"? Are there any you would change or update? Which ones?*

## **2. Interview 2:**

### **A. Final Case-study:**

- a. What was your final case-study about?
- b. How is this relevant to your own field/research interests?
- c. Which concepts did you use from the course? How did you use them?
- d. How was your experience doing this assignment and your takeaways from it?
- e. What did you like/not like about it? What would you change about it?

### **B. Overall:**

- a. Have your views of science changed during the course? If so, how?
- b. Have your views of science studies, philosophy changed during the course? If so, how?
- c. Do you want to learn more about or dig deeper into some of the concepts learned about in this course?
- d. Can you envision using anything you've learned in this course in your own work? How?

## **3. Interview 3 (SL's Interview):**

- 1) For the final assignment in the course, I'm curious to know why you didn't pick a topic that was more directly related to your research?
- 2) Can you think of some ways to use some of the course literature, assuming that you had picked a topic that were more closely related to your own research?
  - a. What do you think of the text about metaphors?

- b. If the task had been to write an essay about metaphors in your field, what would you have done? Do you think something interesting could have come out of it?
  
- 3) In a previous interview, you've mentioned thinking about race and gender as it relates to science. Could you potentially have written about field work and sexism in geology?
  
- 4) In our first interview, you mentioned that you'd observed the formation of thought collectives in geology. Here are some snippets of that conversation (post this into the zoom chat):

“Yeah yeah, I found that that actually really interesting and kind of articulated something that I've always felt about science that people are the products of their advisors and are often times even sort of tribal like I studied with this person so like I don't do that, I don't believe in it and how it can feel really nice when you're in one of those thought collectives especially one that has like a really strong sense of community 'cause like I'm this person's student and that means a lot and we do this science and like we're really well respected but then when you're not in that collective you look at them and you're like these guys are kind of jerks like why do they think.. why are they so self-important and why won't they listen to anyone else? So that was one of the ones where I feel like I could really easily find an example in my science and connect to it”

- a. Would it have been possible to use this as the topic for your essay, and discussed thought styles and thought collectives in your own field?
  
- b. I'm really curious to understand why you didn't pick a topic that was directly relevant to your own research. Here is another quote from the interview:

"A: And do you think that this whole arena value judgments is something that you're going to sort of continue to implement in your own work in any way or...

S: I think it's definitely something I will continue to try to be conscious of especially like it's a big thing in geology to make fun of other Sciences I think partially because we feel ignored. There's a joke in geology that geology without beer is just physics like you know people who do physics are no fun and I think this 'cause like physics is seen as like a really serious science and we might have a chip on our shoulder about that but I have been conscious of how much I build up my work by saying that it's not something else like at least I'm not doing sedimentary geology or something like I know I've been thinking about that more because it seems so pointless because someone is doing sedimentary geology and enjoying it fact that I don't want to do it doesn't mean that it's dumb."

- c. How do you think this behaviour impacts your discipline or research? What about the types of research questions that are asked or methods used as a result?
- 
- 5) To build off that previous conversation, you mentioned some interesting points during the interview about funding in geology: You used the example of geologists trying to bring discussions of climate change into their work, or that you had personally described your own geological work as relevant for space research. Here are the particular anecdotes:
  
  - 6) "...most people want to believe that what they're doing is helpful to people and is part of a larger mission and a lot of geologists become geologists because we really love the natural world yeah um and yeah I think like we want to be contributing to and geology happens on such long timescales that the way we can



contribute perhaps feels incorrect to people in another discipline who have more, can have more of an immediate impact”

“Yeah I mean I think the main way that I think about value judgments is how you get money to do your work and sort of the ways that you twist your project so that you can pitch it to someone in a way that will make them want to give you money so like my work people have some interest in the mineraloid that I'm looking at because it's found on Mars and it's evidence that there's water on Mars and I'm not looking at anything to do with planetary science but when I talk about it I hit on that point because I know that there's interest and there's money in Martian science despite the fact that I don't have any interest in Mars so I think they're like value in the money sense is probably across all sciences because they is increasingly I think less money for more people.”

- a. Do you think the funding structure and politics would have only a superficial impact, or a more real effect on how you do your research? I'm thinking that one would probably still be truthful to what they proposed, just twist it a little bit when applying for funding right?
- b. Could this have been a topic to explore?

7) Ok, I'm done with my questions, is there anything you would like to add or ask me?