An RCR case study exercise, for two players (or two teams)

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The Story, Part One: Holly, a bright and ambitious biology major at a small liberal arts college with an Honor Code, earns a spot in Mr. Professor Cotten’s research lab during the summer before her junior year, with the understanding that she could keep this paid position for the following two years, contingent, of course, upon satisfactory performance. She quickly learns the techniques for testing the reactions of mice to varying visual stimuli, and her preliminary results are so impressive, and her records so detailed and complete, that Professor Cotten starts leaving her on her own. Soon, Holly is keeping long hours at the lab, frequently coming in late at night during the fall semester and working when others are not around. When Professor Cotten starts asking to meet to review her results, she puts him off with one excuse and another, until he finally has to demand a meeting. His review of her too-perfect data suggests to him that she has been excluding data from her graphs. She resents the insinuation; when he says that she’ll have to perform her experiments again, this time under closer supervision, she reminds him that this is an Honor Code College and storms out of his office.

Step one:

Let’s freeze the action at this point. Let person A (or team A) define the issue from Holly’s point of view; let person B (or team B) define the issue from Professor Cotten’s point of view. Engage in a brief debate, each side focusing on what it believes it is doing *right*.

Step two:

Switch sides, and let A take Prof. Cotten’s position this time, while B takes Holly’s position. This time in debate, focus on what each side thinks the other side did *wrong*.

The Story, Part Two: Professor Cotten now sends Holly an e-mail saying that he won’t report any of this, either to the College’s Hearing Board or to the funding agency, on the condition that Holly return to the lab. After consulting Joseph, a fellow student and researcher in the lab, Holly reluctantly agrees. Prof. Cotten has no objection to her data but continues to view her warily; after a brief and frustrating period Holly quits the lab during the spring semester and abandons her position.

Step three:

We freeze the action again. Let team A be Joseph: What are the best arguments to encourage Holly to return? What is the best advice he can give? Let team B be Prof. Cotten: What are his best arguments? In debate, determine to what extent the student researcher’s perspective is different from the PI’s.

Step four:

Let A play Prof. Cotten: How might he *support* Holly’s decision to leave the lab? Let B play Joseph: What might he say *in support* of the decision to leave?

The Story, Part Three: In her senior year, Holly attempts a biology honors thesis, working with Ms. Professor Martin rather than with Mr. Professor Cotten, from whom she feels estranged. Her experiments are on mice and visual stimulation, but using methods techniques that she successfully defends as her own. During the course of the year, however, it becomes clear to Professor Martin, who knows nothing of Professor Cotten’s suspicions, that some of Holly’s data must have been imported from the previous lab. “Well of course,” she says. “Are you telling me that I don’t know what I know?”

Step five:

Let A define Prof. Martin’s *obligations*: What should she have known about Holly’s prior lab experience beyond the mechanics of the mouse experiments? Let B define Holly’s *obligations*: What should she have told Prof. Martin about her own experience in Prof. Cotten’s lab? In debate, focus on the question of *disclosure*.

Step six:

Let A play Holly: How have her *moral* obligations to Professor Cotten’s lab changed from her junior to her senior year? Let B play Prof. Martin: Can she satisfy her own *moral* obligations simply by having Holly speak of the knowledge and techniques gained in Professor Cotten’s lab in the Acknowledgements portion of her thesis? In debate, focus on the question of *ownership*.

A final question: To what extent can Holly’s responsibilities as a researcher be separated from her responsibilities as a student? Are the expectations of moral and intellectual *development* implicit in the student’s life in any way at odds with the expectations of disciplinary *rigor* implicit in the researcher’s life?

Loosely adapted from *Physics Research Mentor Training Seminar*: Case Study (Undergraduate mentee) Independence: Too Much Free Rein? (p.49).