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21W.777 The Science Essay

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Homework #9

Due T 3/10

ESSAY 3: Life/Science OR The Social Impact of Science or Technology

- 5-6 pages double-spaced (1250-1500 words).
- This essay may be primarily exploratory, i.e., meditative, or it may take a persuasive turn.

Essay 3 is an opportunity to pursue one of the issues we've been reading and talking about in more depth, or to reflect on another issue that interests you. It is a think piece more than a research piece—but it may require a little focused research. What's critical: 1) Choose a topic that really interests you; 2) Don't try to do too much; and 3) Anchor your discussion in the specific; don't let it become 5 pages of abstract musings.

Sources: Use "magazine style," that is, work important sources into your text informally—"According to the National Institutes of Health . . ." and so on. As before, append your source list for my information.

The first way you may choose to approach Essay 3 is what we'll call Life/Science:

This essay will grow out of your own experience and explore the intersection of life and science: how you decided to pursue biomedical engineering, why you gave up math club for the flute, dinnertime discussions with your mother, the astronaut . . . You may focus on a person—your neighbor, the high tech entrepreneur; your high school chemistry teacher; your aunt, the pediatrician; a problem—a math problem that has long fascinated you; the challenges you encountered in a UROP or summer internship; or an experience that still resonates for you—the time you blew up your high school chem. lab, the time you almost flunked algebra, the frustrations of trying to organize a neighborhood environmental action program, your success at a science fair.

Unlike Essay 2, this assignment is not primarily expository: you will, of course, have to present facts—who, what, when, why, and how—clearly and accurately, but the value of this essay will lie in what connects those facts, namely, your reflection on your experience. One challenge: the essay is not just a memory piece written for your own pleasure; it has to make meaning in a way that engages readers, takes them somewhere they haven't been. If, as we have said, "an essay is a record of a mind thinking," this essay will record your thinking about science as it is lived, the "personal realm" (Kanigel) of science. But you don't want to blather on about "how important science is to me . . ."—you want to embody your thinking in vivid examples that connect to make an intriguing pattern. To quote Rob Kanigel again, "Your topic may be slight or meaty, but it should dip into the world of fears and feelings, human bodies, human personality, the wellsprings of human creativity."

(more)

The second way you may choose to approach Essay 3 is to focus on the social impact of some aspect of science or technology, or the relationship between culture and science:

This version of Essay 3 is an invitation to think about the relationship between science and culture. This kind of thinking and writing is valuable because it helps us better understand the ways developments in science and technology affect not just the material quality of life but also *the ways we imagine our collective and individual lives*. You may want to *explore* an issue you think is often misunderstood, misrepresented, or overlooked; you may want to *change* your readers' way of thinking about your chosen issues, or you may even want to *recommend* specific policies that you believe follow from your discussion.

This essay will succeed by considering specific cases. You may start with a feeling that you want to discuss “the excesses of technology,” “why the environment is important,” or “the need to make modern medicine less technocratic,” but you will more likely be successful if you focus your idea more narrowly. And you will be convincing only if you provide well-developed examples to support your ideas.

Your essay is also more likely to succeed if you choose a subject about which you feel strongly and with which you have some firsthand experience as a researcher, worker or student. If you have had a lifelong passion for space exploration and don't understand why the space program is not more visible and popular, here's your chance to investigate and reflect on that. If you have reason to believe, from your own schooling, that better math education for all students would pay unexpected social dividends, here's your chance to make that case.

Alternatively, you may want to explore the way some aspect of science or technology has been shaped by culture—for example, the way the culture of MIT tends to assume that technology is the solution to any given problem.

Your own experience and imagination will not suffice to make a strong case. Therefore, you will need to find appropriate sources that provide useful facts and figures, and/or experts' arguments, whose analysis and reflection bolster your own. In short, “you must advance your case with specifics, facts and figures, names and places, clear reasoning, sensual detail, pointed quotes” (Kanigel). NOTE: Remember that our readings can be sources!

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