

**Interdisciplinary 175 – Honors Seminar: “Approaches to Truth”  
The Truth About the Physical World: Postmodernism and the Science Wars**

**Week One Reading Guide**

Find yourself a dictionary and look up definitions of the following “fifty cent” words. These will get used quite liberally in your readings and, I hope, in our discussions in class, so it will be essential to pin down their meanings if you do not already know them.

*epistemology*  
*liberalism*  
*induction*  
*Romanticism*

*empiricism*  
*realism*  
*deduction*

*rationalism*  
*relativism*  
*Enlightenment*

Start with Karl Popper’s preface “*On the Non-Existence of Scientific Method*” that was part of your summer mailing. Popper was a philosopher of science – his writings and ideas are fairly well-received among scientists. Does that surprise you given the title of this preface? What are the main messages Popper is trying to convey here? My intent in selecting this short piece as an introduction is to set a certain tone for this part of the class. What sort of tone do you think this preface sets? Read the Oersted quote on the first page: What science do you think fits today? Read the Maxwell quote on the first page: It contains a theme that we will return to several times over our four weeks together – what is this theme? What do you think Popper means when he says (on p. 7) that scientific theories can be neither verified nor probabilified?

Also review the first six pages of the “*What’s Going on Here?*” introduction to postmodernism by Walter Anderson that was part of your summer mailing. Use this reading (and the next) to determine what is meant by the Enlightenment. What are some general Enlightenment principles? What are some general Enlightenment goals? You should also try to get a basic idea of the many facets of postmodernism. What are metanarratives? What does postmodernism have to say about them?

Your first new reading is the selection “*Some History and Politics*” by Gross and Levitt, two scientists with an ax to grind regarding what they call the “liberal left” and some of their postmodern theories about science. Read pp. 16-23 – we will pick up the rest next week. Continue to refine your ideas about the Enlightenment. How did scientific success in the Enlightenment manifest itself in the social and political realms? How is the Enlightenment related to liberal ideals? (I suggest you look up “liberalism” in the dictionary at this point – we are not interested in its current usage as a political affiliation with, from the Republican point of view at least, negative connotations.) What is Romanticism and how is it related to the Enlightenment? Keep your dictionary handy – these authors delight in using lots more “fifty cent” words like *ineluctable* and *regnant*. Would you agree with me that their writing is *trenchant*? You may find their style heavy going, but I think you can understand their message if you read the article a couple times.

Now read the first chapter of C.P. Snow’s “*The Two Cultures.*” This is a lightly edited transcript of a lecture delivered by Snow in 1959. In the years that followed, the themes in this lecture became rather hotly contested and are part of the background of the Science Wars. What are the two cultures that Snow contrasts? What are the characteristics of each? What do you make of Snow’s decision to talk about only two cultures? What does he mean by a culture, anyway? Contrast Snow’s division of knowledge into different disciplines with what Popper has to say. How does the modern-day concept of the liberal arts fit into this discussion (you are, after all, in a class called Interdisciplinary 175)? Do you think the themes in this lecture have validity today, 45 years after they were introduced?

Jacob Bronowski’s “*The Abacus and the Rose*” was inspired by C.P. Snow’s “*The Two Cultures*” and is written as a dialogue which is a form of writing with a colorful history (think of the Aristotelean dialogues or Galileo’s “*Dialogue Concerning the Two Chief World Systems*”, for example). It positively exudes British propriety and it is, unfortunately, dated by its use of sexist language – science is apparently the domain of males only and Nature is female. However, there are themes woven into the dialogue that are timeless and are at the core of this part of the course. Note, for example, the importance of language and meaning. Are the characters faithful to the broad cultures introduced by Snow? Is science creative? Is there a “winner” by the end?