Journal Entry #7
Is Science Multicultural/Harding
October 10, 2006/ October 15, 2006

Page 13 "Societal eurocentrism occurs when the kinds of beliefs evidenced by the institutional practices are in fact held by the larger culture that establishes and maintains the institutions mentioned in the preceding paragraph (i.e. medical and pharmacology schools). Page 22 "…This is a disturbing recognition for all of us who thought that more science and technology could advance human welfare and social progress, not the welfare and progress predominantly of the economically and politically most well-off at the expense of the welfare and progress of the vast majority of the globe's populations that are already the most economically and politically vulnerable.	Thinking about this quote, I am annoyed. First because Harding attacks American/Western medicine and second because she labels anyone who believes in western medicine to be Eurocentric. To me, she paints a picture of this grand mansion on a beautifully manicured hill with lavish décor to represent the "evil wealthy doctors" that manipulate and control American medicine. She depicts them as self-centered, self serving aristocrats who since the age of colonialism have continued to advance themselves at the expense of the "less fortunate." This is a classic case of all things rich being evil and all things poor being good. Science seeks truth. The scientific method, although not perfect, attempts to objectively describe events that may either support a truth or disprove what was thought to be truth. In the last century, science and the field of medicine have made advances that save lives. These saved lives come from all socio-economic strata. It is, I believe, unfair to attack the enormous commitment (both professional and financial) that is necessary for us to make these medical advances. Are there inequities in the medical profession? Are there inequities in any profession? Of course there are. These inequities exist in ALL societies, not just those of western Europe. Harding attacks the AMA for refusing to acknowledge Eastern medicine but she does not say if China and other Eastern societies openly share these practices with the rest of the world. To write about the social injustice (for profit) is one thing. To actually DO something about it is another. There are many doctors here in the U.S. that devout their lives to treating patients with the risk of being sued for millions of dollars if a mistake is made. Harding fails to mention that most doctors are not tripping over the bundles of money they are making. She fails to address that many MD's in our country are leaving the medical field because they cannot afford to pay the high mal-practice premiums. It is interesting that Harding does not pay lip service to the fact that scientific advances and international aid also fall victim to internal corruption that exists in other countries. Nor does she mention the tireless work of organizations such as Doctors without Borders. I am so annoyed after reading the first chapter of Is Science Multicultural, that I am not looking forward the rest of the book.

	October 15, 2006 Clearly, I was very emotionally charged after reading Chapter 1. I had to walk away from the book for about a week. I talked to my husband and then I spoke to a few classmates (who later admitted that I was rather "angry" with Harding). In trying to understand why I was so upset, I had to explore my own beliefs and experiences with science to see why I defended them so definitively. What is it that I should be taking away from the Harding book?
http://www.socialresearchmethods.net/kb/positvsm.htm Bruner: Acts of Meaning, page 30 "I take open-mindedness to be a willingness to construe knowledge and values from multiple perspectives without loss of commitment to one's own values. Open-mindedness is the keystone to what we call a democratic culture."	First, I needed to have a better understanding of positivism and post positivism as they relate to the history of science. The website to the left is by Dr. William Trochim, a professor at Cornell University, who teaches courses in applied social research methods. After reading Trochim, I now understand that post-positivism is not a "modified version" of positivism. It is a complete break from the posititivst position that science seeks truth through objective observations. Post-positivism completely differs in that it acknowledges that human observations cannot be completely objective because human observers (or scientists) cannot eliminate all biases. Post-positivism seeks to verify knowledge through "triangulation" or through different lenses--different ways of knowing, such as applied research in the social sciences. It now makes sense to me that what we perceive to be scientific knowledge is really just that—a perception based on our observations which are subject to our cultural biases and our personal fallacies. It is also clear that post-positivist epistemologies take in to account the importance of language and culture with respect to scientific knowledge—or rather what we perceive to be scientific knowledge. My view of science has changed. The objectivity issue was a key element in this change. As I think back to the Bruner readings, I recall that biases are a part of one's culture and culture is a part of one's language. Therefore the language we use in reporting observations (scientific and social) is always going to be subject to some level of bias. As Trochim states: "our best hope for achieving objectivity is to triangulate across multiple fallible perspectives! Thus, objectivity is not the characteristic of an individual, it is inherently a social phenomenon. It is what multiple individuals are trying to achieve when they criticize each other's work." This statement is clearly endorsed by Bruner as noted by the quote on the left from Acts of Meaning. How can I conduct research with an open mind? How can I as a researcher contribute to creating a democratic culture? Oddly enough, I found the answers to these questions in Sandra Harding.

Harding page 69 "Many thinkers have perceived the language-dependency of scientific accounts only in negative terms—as the "prison house of language."	Harding notes that one of the objectivity dilemmas of positivism is the inevitable need to use language. Because mathematical equations were not sufficient to report all types of scientific observations, science needed a language to report observations that was objective and free from cultural bias and human fallacy. The "prison house of language" can be perceived as a language locked up and removed from other languages. Yet, no matter how stripped down the language becomes, it still has cultural bias. This is the why scientific objectivity is not possible. This is why I have changed my thinking of what science is and what the purpose is of scientific research.
"The cultural features of scientific language enable cultures to draw on their own familiar metaphors and models to explore different aspects of nature's regularities…"	Instead of trying to control the impossible, it is better to recognize the cultural differences that influence biases present in the language and meaning of scientific research. But is that enough to create what Bruner calls a "democratic culture" within the sciences? Can the social sciences and the physical sciences contribute equally to what we perceive to be scientific knowledge? Personally, I think that for that to happen, individual researchers need to explore their own biases and seek a variety of measures or "tools" for conducting research.
"Scientific research is social labor, carried out in culturally distinctive kinds of organizations—laboratories located in industries, universities, physician's offices, federal institutes, or computer-connected collections of such sites, field stations, farms, collecting and observing expeditions, conferences, learned societies, journals, hospitals, routine visits to healers with culturally diverse credentials, and so on.	Harding offers the notion of "cultures as toolboxes for sciences and technologies." The quote to the left is meaningful because after careful reevaluation of my views of science and research, I am able to see that distinct inequities continue to exist in how research gets funded and who benefits from the results. There is no clearer example of how research is controlled by those who have political and financial power than the current state of educational research (i.e. NCLB and the funding for only SBR). Although I still believe that Harding paints a skewed picture of the inequities that exist in western science, I do agree that many of these inequities benefit some at the expense of others. These inequities must be addressed, I believe, not only in how and where we conduct research, but in the very research questions we ask. For example, I now find myself asking: Who will benefit from my research? Will those benefits come at the expense of others? Before reading Harding, I may not have asked these questions. I did not truly see that "scientific research is a social labor" and that my role as the researcher is more than just recording and interpreting data. Where and how I collect data is just as important as the data I collect. From the Harding readings, the Trochim webpage and from reflecting back to Bruner, I now know that my research should not end with a set of conclusions. Rather, my interpretations should be questioned by others with different backgrounds (ethnic, SES, and educational interests) if I am to, as Trochim says, "approach objectivity."