The "Global" in the social science and humanities

Well, I hope Dave and I did not throw too much at you in the first day of class! My objective on the first day was to introduce some basic themes that we will be working with in rest of the course (at least with the social sciences and humanities component).

First, I wanted to make clear the importance of approaching "global" issues from both the arts and the sciences. Bottom line: we cannot understand global issues without an understanding of both the arts and the sciences and how they relate to each other. Second, I wanted to introduce the importance of agency and how individuals, collectives of individuals (such as groups and states), and the nature of the international system as a whole, can all be sources of global problems and at the same time are all relevant in any effort to address or respond to global issues (i.e. as agents of responsive mitigation or adaptation). We will be coming back to this basic framework in both the climate change and genomics units. Third, I wanted to reflect on the relationship between science, society, and social discourse or the "spirit" of the times. How we think about global issues, and issues like climate change and GMOs, is a product of a larger mix of social discourse and culture, scientific discoveries made in our time, and social norms and ways of thinking about issues. It is the same today, where arguably a "doomsday" or "apocalyptic" social mood is quite strong. We have to understand global issues as a subject that is embedded in this larger social context.

Then it was on to the nature of the term "global" itself. There is a lot going on here. We have tended to think of "global" issues in rather human-centered materialistic or mechanical ways (trade flows or multinational corporations or cell phone use) instead of a conceptualization of the planet earth as a single unit of analysis (a "one world") that includes all species and ecologies. In fact, perhaps it should include everything out to the magnetosphere of

the planet, or beyond to the solar system (or at least the Sun). It is also crucial to think of "global" in the sense that an issue or event can actually or potentially affect the entire planet (although not necessarily in a uniform way). And so, I made the argument that "global" needs to be thought of as another level of analysis and a new level of thinking, which is distinct from other terms associated with the "system" level of thinking (such as "globalization" and "international"). These terms tend to focus mostly on the interaction between humans and human systems (social, economic, and political). Global issues include but transcend humanity and human society: they have implications across all life forms, ecological systems, and future generations of these life forms and systems.

Finally, a big part of global issue phenomenon is the understanding that human activity is now having a global impact on all life forms, ecological systems, and future generations of those life forms and ecologies. Global issues, in turn, have an influence on human activity, including the transformation of social organizations, the erosion of the state, the rise of global markets, the rise of global governance, and the rise of international civil society. Ultimately, global issues are having an increasing impact on all of us.

The History of the "Global"

My purpose here was to reflect on the notion that our time is not the first time that people have marveled at the "globalization" of the world or human activity. "Globalization" has a history and this is a big part of how global issues are addressed in the social sciences and humanities. I offered some significant markers or moments:

Migration of Homo Sapiens 50,000 years ago: proto-globalization

World religions

World trade patterns

1492 German geographer Martin Behaim built the first known globe as a representation of the earth.

1522 first circumnavigation of the earth (an expedition led by Fernao Magellan but completed by Juan Sebastian Elcano)

1851 first world's fair

1865 creation of first global regulatory agency (International Telegraph Union)

1866 first permanent transoceanic telegraph cable

1884 first global co-ordination of clocks (GMT)

1930 first global radio broadcast (King George V opening the London Naval Conference to six continents)

1940 first MacDonald's restaurant (purchased in 1955 and expanded since to 34,000 restaurants in 119 countries)

1944 The word "globalize" first appears in the Mirriam Webster Dictionary

1957 first intercontinental ballistic missiles

1962 launch of first communications satellite

1963 first direct dialing of transborder telephone calls

1968 "Earthrise" photograph of earth from moon orbit (Apollo 8)

1971 first electronic stock exchange opens (US NASDAQ)

1972 first global ecological conference (UN Conference on the Human Environment)

1976 launch of first direct broadcast satellite

1977 first commercial use of fiber optic cables

1987 appearance of Antarctica ozone layer hole

1991 introduction of world wide web

2000 the world possessed 850 million telephone connection points, 1.1 billion television receivers, 60,000 transborder corporations, 16,500 transborder citizens organizations

There were two points here. The "global" has a history, and so we must reflect not only on how much has changed, but also on the fact that in some ways, the "global" or "globalization" are not as new as we sometimes make them out to be.

Levels of Analysis

So how did we get here (in terms of global issues, I mean)? Why do things happen? What are the agents of change? Different levels of analysis give us different ways of examining issues, but also different explanations for the question "why do things happen?" and "who are the agents of change?"

The traditional view is that these agents of change can be divided into three levels: the individual (people make things happen), the state/group (states and groups of people make things happen), and the system (things happen because the system determines the nature of actor beliefs and preferences). By using this framework,

we can generate different hypotheses for events and phenomena in the human world.

So maybe today we need to think beyond this to a new, fourth level: the individual, the state/group, the system, and the global (which transcends humanity and human society to include the planetary ecology, all living things and ecological systems). In any case, these levels of analysis compel us to recognize three things:

1) The origins of any global phenomena can be explained in different ways (using different levels);
2) The impact of these phenomena will be felt at different levels;
3) Actions taken at any one level can have an impact on other levels (i.e., if an international agreement on greenhouse gas emissions is signed it will impact Canadian policy and law and us as individuals).

Science and Society and Projection and Prediction

I then went on to make the observation that everything we are going to discuss in the course (including the science) is embedded in a particular interaction of the scientific, the social, and the discourse/public dialogues of our time. This is true of all periods. It was the case with H. G. Wells' War of the Worlds and the nuclear war threat of the Cold War. And it is the case with Climate Change today.

Our "Zeitgeist" (or "spirit of the times") today is grounded in the notion that we are all going to die (this is not a revelation, so perhaps more significant is how we are going to die and how soon). As Stephen Hawking has said, "I do not think the human race will survive the next thousand years." But this is not unique in a world that seems to find many ways of foreseeing its end (quickly and slowly). The following are all recent predictions:

- Social collapse due to unsustainable practices and failure to adapt to environmental pressures (*Collapse* by Jared Diamond)
- Infectious Disease (movies like *Outbreak)*
- Sub-atomic particle experiment Chain Reaction (particle accelerators create unnatural particles that would collapse matter, or create black holes (*Our Final Hour* by Martin Rees)
- Nano-robots (Michael Crichton thriller *Prey)*
- Rogue planets ("Planet X" or "Nibiru") or black holes
- Shifting magnetic poles (The movie *The Core*)
- Super volcanoes: huge long term volcanic eruptions that coincide with large extinctions (*Volcano*)
- Climate Change (the movie *The Day After Tomorrow*)
- Climate Flip: sudden, rapid change (a flip every two millennia)
- Killer Asteroids (*Deep Impact and Armageddon*)
- Mayan Doomsday calendar
- Galactic Alignment (?!)

The result: a time of global extinction angst. We have to be aware of this when we consider global problems because they inform our belief systems, intuitions, value systems and everything else that frames and influences our thought processes on global issues. We need to understand the science and the society in order to understand the whole, how we perceive it, and how we react to it.