Physical Science or Social Science?

The origins of the study of physical geography can clearly be traced back to the work of William Morris Davis, a geology professor at Harvard, and first president of the Association of American Geographers. There are clearly subfields and topics in physical geography that are removed from the social sciences: paleogeography clearly includes a vast period of time without the human presence and the role of human agency in fluvial geomorphology is a mere identification of our actions, but not our intent. The most compatible unity of the physical and social sciences of geography appear to be current research in geography concerning the human-physical environment interface. Some in physical geography recommend an integration of geomorphology, climatology and biography into environmental sciences and spatial analysis to provide for a more critical approach to human-environmental interactions (Gregory, Gurnell and Petts 2002). The Geography Department of the University of Wisconsin-Madison, applying this approach, terms the subfields as People-Environment Geography (University of Wisconsin-Madison 2009). In practice, the objectives of human-environment geography are self-evident. The three imperatives proposed by Cooke describe the interactions between the researcher in physical/environmental geography and public policy response: 1) the landscape imperative is concerned with recognizing and analyzing an environmental issue prior to public response using “field-based skills;” 2) the institutional imperative involves participation in planning process to determine the nature of a public response; and 3) the historical imperative embraces the study human-natural environment context over time “so that the consequences of previous human actions can be judged and, if necessary, blame apportioned, management responses improved, and future needs assessed” (Cooke 1992, 133).

The beginnings of the study of human geography in American universities can be traced to multiple sources. In the subfield of economic geography, new concepts in the discipline of economics resulting from exposure to the German social sciences crossed into geography (Fellmann 1986). The field of economic geography was transformed by two Post World War II theoretical movements, the Quantitative Revolution and the “Cultural Turn.”

The first, associated with the quantitative revolution and called epistemological, seeks knowledge of the world through the positing of some foundational vocabulary that guarantees truth. The second, associated with the cultural turn and called hermeneutics, strives for interpretive accounts that are open-ended, reflexive, and self-consciously perspectival and partial. (Barnes 2001, 561)

Simply said, the new economic geography crosses the bounds of other disciplines ranging from political science to cultural studies fluidly and freely appropriating ideas outside the discipline; while the economic geography of the Quantitative Revolution involved a more rigorous approach drawing from an established intellectual tradition, both movements striving for clarity (Barnes 2001).

Some geographers have expressed concern that the interdisciplinary nature of geography, not crossing disciplines, but crossing within the discipline between physical and human, threatens the identity of geography. However, geography has a wide range of audience with different interests. It is strengthened if the differences between disciplines and fields are managed in the research and publications (Johnston 2003, 139). The subfield of historical geography, however, appears to have been drifting to the margins. D. W. Meinig observed during the late-1980s, that geography had already splintered into fifty-one subfields. As aging faculty retired, there was great competition for these positions from other subfields. This was happening even as publications in historical geography were on the rise, and its prestige was on the rise outside geography (Meinig 1989, 85). In 2010, with the combined pressures of the enduring economic downturn and a shift in curriculum towards economic and environmental geographies, vacant positions in historical/cultural geography will be dropped by universities, and courses will taught by faculty in other subfields or dropped from the curriculum altogether.

Works Cited


