The War on Terrorism, Academic Publication Norms, and Replication

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recent issue of The Professional Geographer carried an article by Richard A. Beck on the use of "counterterrorism tools" in the current war in Afghanistan (Beck 2003). In this article, the author shows how he used his personal field knowledge of the border area between Afghanistan and Pakistan, as well as remote sensing images, geographic information system (GIS) tools, and the military history of the area to advise the U.S. government where terrorist camps were located. (The study was initiated by a widely disseminated video of Osama bin Laden standing in front of a distinctive rock type.) Quoting from the article abstract, "This information was forwarded to the U.S. government in October 2001. Military and news reports indicate the subsequent successful elimination of a large number of terrorists and munitions at Zhawar Kili in November 2001 and January, February, and April 2002" (Beck 2003, 170).

Beck sites his article in the literature on the growing use of sophisticated technologies to assist intelligence agencies and military forces: "Indeed, in May 2002, the U.S. intelligence community made public its plans to add new and unconventional remote-sensing and GIS techniques to their intelligence arsenal, to counter the increasing sophistication of terrorists and their sponsors with regard to eluding current electro-optical imaging systems" (Beck 2003, 170-71). The article's purpose is boldly presented: "This case study uses environmental remote sensing and GIS to narrow the number of reasonable interpretations of limited counter-terrorism intelligence to help with efforts to eliminate terrorists and munitions" (171). After the author applied his technical and fieldwork expertise to the problem, he narrowed possible campsites to a specific region on the border between Afghanistan and Pakistan:

Once it was clear that Zhawar Kili was indeed on Kurram Group rocks and that the initial interpretation of the location of the terrorist (Osama bin Laden) in the video had passed at least one minor test with regard to its feasibility, a short list of likely targets (the Khost-Wariziristan region, with specific coordinates for Zhawar Kili and Miram Shah) was forwarded to the U.S. government on 30 October 2001. U.S. and British military and news media reports indicate that Zhawar Kili . . . was targeted during November 2001

—(Beck 2003, 174).

Beck then claims that his pinpointing of the Al-Qaeda camps resulted in U.S. and allied military action: "U.S. and Afghan ground forces did revisit the Zhawar Kili area after this suggestion and confirmed that suspected terrorists had indeed returned. More terrorists were eliminated as noted in news reports by the *Washington Post* on January 7, 2002" (175). While there is no possibility of certifying that Beck's claim of assistance to the U.S. military is accurate from the text of the article, the author's positioning is evident.

I am not objecting to the publication in an AAG journal of this kind of work (I assume it met the normal review standards), nor of the choice of sides in the "war on terrorism" that Beck has made. Academic freedom allows both. What I object to is the violation of scientific publication norms in this instance. Again quoting the article, "Publication of the method and results of this study were delayed for the safety of U.S. and allied military and intelligence personnel tasked with counterterrorism efforts in Afghanistan. Some information sources used in

this study, some details of the method, and some conclusions have been omitted for the same reasons" (171).

Since when do AAG journals engage in this kind of obvious self-censorship? How can a study be replicated (the basis of scientific advancement) if some of the methods and information are withheld? Has the Association inadvertently or surreptitiously taken sides in the "war on terrorism" without the knowledge of the members through violation of a basic tenet of academic review and publication? For Beck's part, there is no attempt to camouflage his partisanship, as it is stated multiple times in the article. The Beck article highlights a number of important issues of academic transparency and the standards of journal review and publication. These concern the new realities of academic work in an age of terrorism, classified research, and the lack of attention to replication in geography journals.

A reviewer is often in the dark regarding the provenance of an anonymously authored article because of the stripping of identifying material by a journal editor. Thus, editors need to be aware of any special circumstances that might compromise the review process. If authors cannot identify their funding agencies, can disseminate only partial results and hide information for partisan purposes, cannot share all of their data or request specific timing of the publication of their study for political reasons, then their work should be rejected by the editors of the Association's journals. While these conditions are widely discussed in the medical research literature, neither The Professional Geographer nor the Annals of Association of American Geographers seem to have published relevant statements. The Statement on Professional Ethics of the Association (accepted by the Council in October 1998 and available from www.aag.org; last accessed 20 June 2004) considers ethical issues in field research, protection of confidentiality of respondent answers, research by government employees that can be reported, and applications for government research support. However, the ethics statement is silent on authors' responsibility for transparency and publication ethics. It cautions that "no single definition or list could possibly capture the plurality and complexity of the moral concerns relevant to geography" but pushes the "goal of encouraging ongoing reflection and action."

I am not so naïve as to believe that other papers submitted to geography journals do not suffer from similar omissions, evasions, and hiding of results as the Beck article, though the author's honest statements here make the problem more visible. However, I think that the problem is likely to get worse unless the AAG and similar societies grasp the nettle. Unfortunately, the current political climate in the United States in the context of the "war on terrorism" has frightened academic societies into censorship and self-censorship of research topics, results, and publication. Research in biology, especially, has been adversely affected because of the fears that unauthorized persons, especially those whose interests are inimical to the Bush administration's policy on bioterrorism, will gain access to labs and biological agents. The American Society for Microbiology (ASM) publishes eleven journals and, since September 2001, all reviewers have been asked if the manuscript under review "raises any eyebrows" about national security. Any paper about selectagent (dangerous microbes) research is examined carefully by the editors and the head of the ASM publications board to see if it contains sensitive material. After several authors asked ASM editors to publish their papers without providing sufficient detail on the methods (perhaps because they feared that terrorists might replicate their methods), the society pushed for a national conference of scientists and government officials. The policy emerging from this January 2003 conference was that editors would judge when the potential harm of publication might outweigh potential benefits (for details on these developments, see Taylor 2003).

Most scientists clearly distinguish between classified work that typically is not sent to academic journals for review and possible publication and unclassified work that can be reported openly. Usually the bounds of classification are agreed in advance with the contractural or funding agency. The AAG ethics guidelines state that "the guiding principles in relations with sponsoring and funding organizations should be 'openness' and 'disclosure.' In many cases, ethical issues related to funding can best be avoided by discussing possible conflicts or concerns with officials at the agencies and institutions that fund research at the time funding is sought, rather than after problems appear." What is unusual about the Beck case is

that it appears that the author was not contracted or funded by the U.S. military and thus not a party to the usual prepublication agreements. Because the author then imposed his self-censorship on the results, the journal should have applied the usual rules that operate regarding classified work and refused to publish the incomplete research report. Following the usual guidelines, Beck cannot have it both ways—publishing classified work in an academic journal devoted to transparency and openness.

The issue of replication has recently achieved prominence in the discipline of political science. In order to encourage replication and extension of published work, many funding agencies, including the U.S. National Science Foundation, require principal investigators to deposit their data in archives or to make them available by other means to interested colleagues. The AAG ethics statement encourages such sharing of information: "In general, geographers should make data and findings available to the greatest extent allowable by funding agencies and in a fashion that is consistent with the goal of protecting the people, places, and things they study. More specifically, information that can be shared without violating funding guidelines and confidentiality should be archived in a manner that maximizes accessibility." Based on a study of the citation of papers in the Journal of Peace Research during the period 1991–2001 (426 articles), while controlling for a host of other paper and author characteristics, Gleditsch, Metelits, and Strand (2003, 92) find that an author "who makes data available is on average cited twice as frequently as an article with no data but otherwise equivalent credentials." The original statement on the replication standard—"sufficient information exists with which to understand, evaluate and build upon a prior work if a third party can replicate the results without any additional information from the author" (King 1995, 444)—has been endorsed by many political science journals. Of the twenty-eight most frequently cited journals in political science and in international relations (including Political Geography), slightly less than one-fifth of them have a stated replication standard (Gleditsch and Metelits 2003). The editors of four major international relations journals (Journal of Peace Research, International Studies Quarterly, International

Interactions, and the Journal of Conflict Resolution) have agreed a minimum replication standard that states:

Authors of quantitative empirical articles must make their data available for replication purposes. A statement of how that is done should appear in the first footnote of the article. Required material would include all data, specialized computer programs, program recodes, and an explanatory file describing what is included and how to reproduce the published results. This material must be posted by the month of publication, except when, with agreement of the Editor, the deadline is extended to accommodate special need of an author to employ the data for subsequent publications. Information that must remain confidential-such as that which would identify survey respondents-should be removed. All files should be sent electronically to the Managing Editor for posting on a website maintained by the journal for the purpose. In addition, authors may send the material to www.icpsr.umich.edu and any other sites they wish to use.

—(Editors' Joint Statement 2003, 105)

The policy is already in operation for such journals as Political Analysis, while the American Political Science Review requires that "if your manuscript contains quantitative evidence and analysis, you should describe your procedures in sufficient detail to permit reviewers to understand and evaluate what has been done and, in the event the article is accepted for publication, to permit other scholars to carry out similar analyses on other data sets." (Guidelines available from http://www.apsanet.org/apsrinst.pdf; last accessed 20 June 2004. Further details on the replication project can be obtained from http://gking.harvard.edu/replication.shtml; last accessed 6 July 2005.) Beck's omission of some data, methods, and sources in his article would not allow it to meet even this lower replication standard.

To repeat for emphasis, Beck is entitled to engage in this kind of military geography in a classified manner, and the U.S. government can use or discard his information as it sees fit. But the journals of the Association should not be coopted in a manner that erodes their credibility and undermines the principles of transparency of academic work and publication. Drawing on the canonical writing of Max Weber during World War I, Isaac (2004) makes a strong case for scientific professionalism, methodological

scrupulosity, and value neutrality in the present time of the "war on terrorism" with the accompanying rise of the "tutelary state ... (and) an atmosphere of conformity and fear (476). Breiner (2004), in reply, urges engaged research on the causes, course, and consequences of the "war on terrorism." Beck's article could be seen as part of this engagement, though probably not what Breiner envisaged, and thus highlights the problem of partisan preference. What is clear is that it should alert us to the violations of the principles of transparency and requires renewed consideration of our professional obligations and ethics. ■

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