Opening the Black Boxes
To Public Knowledge
“Where is the wisdom we have lost in knowledge? Where is the knowledge we have lost in information?”

—T. S. Eliot’s “The Rock” (1934)

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In the last prerogative, I discussed the mission of the Adirondack Journal of Environmental Studies (AJES) as helping to bridge the gap between science and decision-making by publishing regional-based research with the goal of informing regional policy. The information gaps and policy concerns that occur in the Adirondacks are not unique to this region. One can argue that they are systemic problems in many locations. Research and its findings are generally not well shared among various stakeholders and are sometimes less often incorporated into policy. Moreover, policy implementation and its effects on people can also be largely unknown (Mosse, 2004). Research is conducted and often published; yet, it reaches few policy makers and public stakeholders. Some scientists say research has produced adequate data to identify problems and their solutions—all we need is for policy makers to listen. In turn, policy makers may say data are inconclusive and that we need more research. While fingers continuously point in opposite directions, conservation problems may increase as social capital erodes. The term ‘black box’ is used to describe the ambiguous research cloud that veils how (if at all) research informs and directs policy and the largely non-transparent ways in which policy is implemented. These black boxes are the nebulus voids of disconnect between researchers, academics, practitioners, policy makers, and the public.

One possible reason for the breakdown between research and policy is that access to published information is abruptly halted as fee-based journals have business models that create barriers to thousands of articles covering a seemingly infinite number of regions and topics. In this prerogative, I step back from this rather apparent monetary argument in order to briefly examine basic epistemologies, assumptions, and definitions to demonstrate that the bridge between science and policy is not as linear as we have been (mis)led to believe. Here I deconstruct what is conventionally referred to as ‘science’ in favor of building an argument for acknowledging and integrating other forms of knowledge that are historically undervalued and largely overlooked, such as personal experience, local knowledge, and informed judgment (Wilkinson et al., 2007). My point is that the link between science and policy is non-linear. Further, what “science” is conventionally defined as, and those who have traditionally defined it, can be narrow in scope and overlook other forms of knowledge that are just as important as conventional science (if not more so at certain times). In essence, environmental problems are people problems. People problems are complex and require unconventional approaches and solutions.

Another issue that compounds the ambiguous black boxes of research and policy is that management decisions often occur as a form of scientized...
management. Scientized management is based upon a positivist epistemology and reductionist belief system that views problems over natural resource management as objective, biophysical, and as having techno-scientific solutions (Brunner & Steelman, 2006). Positivism provides a conventional formula for understanding and approaching problems that are based on a distribution of power, in terms of who defines the problems, makes decisions, and upon what basis these decisions are made (Lasswell, 1971). According to this paradigm, only scientists, technical experts, and agencies are viewed as being best qualified to define and solve problems (Brunner & Steelman, 2006). While positivism has its place and many advantages, the main disadvantage of positivism is that it oversimplifies problems, and in doing so, can worsen them when the problems are initially misinterpreted as being solely biophysical. Sound management solutions must be informed by scientific information, but actual decision-making is often subjective and data can be politicized and used divisively and impartially (see Foucault, 1982; Habermas, 1975; and Scott, 1998). The scientized management formula creates a black box that the public has little opportunity to infiltrate, often leaving litigation as its only strategy for participating in the social and decision processes of natural resource management (not unlike the Adirondack Club and Resort case in Tupper Lake, NY). Scientized management is also narrowly disciplinary and thus has little to no room for understanding human values, clarifying resource management goals, finding common ground, or for creating inclusive decision-making arenas. Scientific management is useful when problems are technical and when decision-making is straightforward and not political. This does not characterize the Adirondacks.

In comparison, post-positivism is an epistemology that recognizes the complexity of environmental problems as fundamentally social and political in origin and in nature. Alternatives to positivism have emerged including integrative approaches such as interdisciplinarity and adaptive governance (Clark et al., 2010). The goal of interdisciplinarity, in particular, is to use multiple methods, insight, and enhanced judgment to examine resource management problems as they actually exist and not what people may perceive them to be (Clark, 2002). Adaptive governance is a specific form of interdisciplinarity that calls for an empirical, systematic, and problem-oriented approach based on a 'science of the whole' (Brunner & Steelman, 2006). Adaptive governance allows for scientific as well as local knowledge, experience and judgment, and for policy decisions to be modified to differences and changes in experiences on the ground and in real-time (Brunner & Steelman, 2006). Interdisciplinarity does not reject positivism. Positivist approaches are important and provide useful contributions to our understanding of natural resource management problems, but interdisciplinarity puts it into its contextual place and allows for more holistic problem solving. Post-positivist scientists and practitioners understand that techno-scientific definitions of and solutions to problems that are inherently social and policy problems tend to fall short of their goals. Post-positivism also acknowledges that science is not necessarily linear with policy, scientists are not the sole experts, and that agencies are not the sole decision makers. The management consultant, writer, and educator, Peter Drucker (1998), cautioned that "most discussions of decision making assume that only senior executives make decisions or that only senior executives' decisions matter. This is a dangerous mistake." Post-positivists understand there are many diverse and creative forms of knowledge that are useful in solving problems, including the experience and knowledge of local people.

AJES, like the Adirondack Research Consortium, works to address issues of transparency and the black boxes of research and policy implementation. We do this by creating a centralized opportunity for efficient knowledge transfer that provides better information for better decision-making on all levels for real people, not just for agencies with traditional decision-making power. Biophysical information is vital to collect, but it alone is not sufficient for policy decisions, which are often based more on human values and are political rather than technical in nature. I believe that AJES works to avoid the pitfalls of informing and promoting scientized management by being transdisciplinary, by acknowledging that social capital is just as important as technical data, and by recognizing the benefits of adaptive governance. Such benefits are seen in the dedicated work of local community-based initiatives that advance common interests among various people when conventional institutional methods are not sufficient. AJES not only helps bridge gaps between stakeholders, it is an example of a community-based initiative in itself that also contributes to and supports other initiatives with similar goals of adaptive governance and finding common interests.

Local knowledge is surprisingly undervalued and absent from most journals; however, AJES both encourages and includes it. The Adirondack Park has a respectable concentration of scholars found outside academic institutions. These folks are impressive and seemingly bottomless repositories of knowledge. Moreover, many are contextual when identifying management problems and are creative in devising solutions. Most importantly they have a passion for the region and an expectation and a right to see it managed well (Tian, 1974). I have had the privilege of meeting many such people in the Adirondack Park. I support the idea that practitioners from the private and public sectors and the public are just as informed and capable of defining and solving problems should they be given the chance and the visibility. AJES acknowledges that all informed knowledge is important and that is why we welcome perspectives and information.
from a variety of people and in a variety of formats from commentaries to essays, book reviews, profiles, and interviews. AJES is inclusive of all people, not just scientists, and of all disciplines, not just the natural sciences.

At AJES, we find what is ‘out there’ in the largely unorganized and nebulous cloud of research, scholarship, and policy implementation (sometimes even unbeknownst among those conducting them) and work to organize and consolidate it into one source. AJES strives to fill the gaps between information producers and users by becoming the nexus through which this information is collected. This information is then funneled and dispersed, much like an aqueduct, to readers who want to be informed of transdisciplinary scholarship and ideas. The overarching goal is to ultimately influence policy that balances narratives using sound data and judgment. It is through this nexus that research and policy implementation can reach and become known to those who it affects most, including an often-overlooked group of stakeholders—the public.

Unlike most academic journals with a narrow focus, AJES has a breadth of topics and types of articles. This breadth also demonstrates the ARC’s acknowledgement of transdisciplinarity as important in understanding the region’s diverse problems that span the biophysical, social, economic, and policy realms, and often interact in complex ways. We also welcome manuscripts for peer-review that span all relevant disciplines. AJES, like the ARC, strives to provide better information in its broadest sense to effect better decision making even at its smallest scale. AJES is also committed to publishing articles in an effort to disseminate objective information in order to build a basis of common knowledge and understanding that can aid in the larger communal efforts of finding common ground. AJES is not the only group devoted to this exemplary and prospective goal. The motto of AJES is “seeking common ground among a multitude of viewpoints” by presenting factual information that helps advance our knowledge of and dialogue around common interests. As an open access (in terms of readership and authorship) and transdisciplinary journal, we are striving to open up the black boxes of research and policy and to work towards finding and securing common interests. Help us work towards these goals by submitting articles for publication. Please visit www.ajes.org for more information. We would love to hear from you.

References


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