# Northwest Science Forum

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## Science, Position Advocacy, and Ethics: A Rebuttal to Hadley

Actually, Hadley and I appear to agree on several points, just not on the most important ones.

I agree with his statement that science can't be totally objective and neutral. I agree that scientists are beginning "…to understand the biases of their own work…." I said in my Forum offering that my proposal "…is not to say that scientists do not have personal values: they do. It is also not to say that those values do not affect the scientist's behavior: they do." (p. 166). In fact, it is partly because many scientific disciplines are so deeply rooted in a value-based foundation that the issue of values and the role they should play is such a vital topic. The question is not whether scientists can be totally objective and divorced from their values. The question is how they act on that knowledge, and in particular "…whether they should express those values by advocating for any particular decision outcome…" (p. 166).

I also agree with Hadley that scientists should "…play a less passive role in resource management…." That is why I proposed that scientists should advocate the consideration of science information in the decision process. And I admit that advocating the consideration of science information is based on my personal value that resource decisions are too important to make without full consideration of information about the possible consequences and risks of those decisions that come from scientific study. In the resource management decisionmaking situations where I have seen scientists forcefully advocate for a full consideration of science information about consequences and risks, it has led to anything but the "…expediency…" that Hadley fears. The forceful presentation of the science information not only permitted but also almost forced a much more careful and thorough consideration of the consequences and risks of decision alternatives than would otherwise have occurred.

My argument is not that scientists should not advocate anything, but rather that they should not advocate a position or a decision. Arguing that scientists should advocate the consideration of science information is dramatically different than arguing that they should advocate a particular position or decision as scientists. Not understanding the difference is a mistake, one that Hadley appears to make when he alleges that my proposals on advocacy are "…inconsistent…." I deliberately used the words "position" advocacy, rather than just advocacy, in the title of my Forum offering.

The core of our difference seems to rotate around an understanding of what science does and does not provide to a decision. For example, when Hadley states that "The success or failure of scientific-based advocacy should depend on the quality of the science…" he doesn't appear to be acknowledging the difference between information and decisions or else he thinks that the distinction is unimportant. There is a difference, and that difference is vitally important.

Science helps us understand the systems affected by the decision. Science reveals relations among system components; perhaps even insights strong enough to understand cause-and-effect relations. That knowledge in turn permits scientists to estimate the consequences and risks of particular decision alternatives. The understanding provided by science might even lead to the creation of new alternatives that might not have been developed without the science. All those science contributions are invaluable to reasoned resource management decisions. And those contributions too often are lacking in important natural resource management decisions that

have far-reaching and long-lasting effects on natural and human systems.

Does that science information or knowledge alone lead to a decision? No. The choice among the different decision alternatives is inevitably the result of a value judgment about which alternative embodies the best tradeoffs and outcomes. Science can help us understand the tradeoffs and risks, but personal values are necessary before a conclusion can be reached about which set of outcomes is best. Treatment of risk is an example. Science can contribute to the understanding and measuring of the risk associated with a decision alternative. Science can't, however, tell us whether the alternative contains too much risk. That is a value question.

That value choice is essential to a decision, and it can be informed by science. But the value choice itself is not science. To pretend that it is science is false. To pretend that it is science is a misrepresentation of personal values for science. That misrepresentation is unethical, just as unethical as any other false statement.

The most important outcome of this dialogue though is not whether Hadley or I are "right." Nor is the most important outcome adding to an opinion poll among "...commentaries and articles found in many of our journals...."

The most important outcome is for individual scientists to be thoughtful and choiceful in selecting the roles they will play and how they will represent themselves in contentious public debates. Individual scientists have a responsibility to make that choice themselves. They must choose whether they will forcefully advocate the consideration of scientific information or retreat to the quiet of their laboratory. They must choose how they will balance their desire to express personal values through position advocacy with their desire for decisions to be well informed by scientific information. They must choose whether they will advocate the consideration of science information but avoid advocating a particular position or decision. And no, I don't think scientists can have it both ways. They can't credibly advocate the full consideration of science information and simultaneously advocate a particular position, not in a world where the public is constantly faced with intentional misinformation and half-truths from all sorts of position advocates.

My opinion on those questions is clear. Natural resource management decisions are much more improved by careful consideration of scarce, credible information about consequences and risks of alternatives than they are by the addition of yet one more advocate for a position in an already crowded field of shrill position advocates.

But whatever role individual scientists choose, they should choose it thoughtfully. The natural and human systems affected by natural resource decisions and the credibility of the institution of science deserve a thoughtful choice.