

Philosophy of Science and Leisure Research

Michael E. Patterson
University of Montana
Missoula, MT

KEYWORDS: *Leisure research, philosophy of science, research principles*

Ten years before the millennium, the *Journal of Leisure Research* published a special issue devoted to a discussion of the philosophy of science. While acknowledging those in leisure research who have seriously grappled with these issues, Sylvester (1990) noted that "we are largely uninformed about the philosophy of science or, even worse, we choose to ignore it" (pp. 281-282). Weissinger (1990) voiced a similar perspective, suggesting that leisure researchers need to engage in a process of learning how to intelligently discuss alternative paradigms.

As we enter the new millennium, it is worthwhile to ask how far the leisure discipline has progressed in the last 10 years. A mid-decade evaluation by Weissinger, Henderson, and Bowling (1997) suggests a dramatic increase in publication of research using qualitative approaches in comparison to the 1970's and 80's when such approaches were practically absent from leading leisure journals. However, one of the most recent papers in *Leisure Sciences* expresses a qualitative researcher's increasing discomfort with the nature of this qualitative research (Dupius, 1999). And at conferences I find that some colleagues continue to ask why I spend so much time talking about the philosophy of science. Seemingly like the *Nike* generation we have become at the end of this millennium, they urge me (and presumably their students) to "just do it." I believe that this "just do it" mentality is still the heart of the problem. It traces back to the tendency to equate science with methodology rather than philosophy. It is tempting to point the finger here just at "old school" rationalists who maintain a belief in a single approach to science of the sort labelled "*the scientific method*" in biology 101, falsificationism by some social science contemporaries, and positivism by some of its critics. But Weissinger et al.'s (1997) documentation of the increase in publication of qualitative approaches suggests this explanation is not adequate. We also need to point a finger to the "new" generation that continues to perpetuate a methodological conception of science by framing alternatives as a discussion about qualitative methods. As a basis for understanding the philosophy of science, a reference to qualitative methods is largely meaningless. Methodologies are merely machinery, it is the underlying philosophy that guides the operation of that machinery that should be the focus of discussion. This point has been made previously in leisure research (Weis-

Correspondence concerning this article should be addressed to Michael E. Patterson, School of Forestry, University of Montana, Missoula, MT 59812. Email: [mike@forestry.umt.edu].

singer et al., 1997; Dupius, 1999), but it seems to get swept away all too frequently by discussions that frame the "how to" of science chiefly in methodological terms.

We need a language and set of concepts capable of lifting us out of this methodological mentality, and like Sylvester I believe the leisure discipline needs to turn to the philosophy of science. In fact, it is with respect to this issue that Thomas Kuhn made one of his most significant contributions, defining the appropriate unit of analysis in the study of different approaches to science as the macrostructure (Anderson, 1986). Patterson and Williams (1998) introduce a model describing the macrostructure suitable for discussions in leisure research. It characterizes the macro-structure of science as consisting of three levels: world views (broad philosophical debates concerning the nature of science and the concept of validity); paradigms (debates concerning the normative philosophical commitments underlying specific approaches to science), and research programs (empirically centered debates concerning theory and the specific methods of collecting, analyzing, and interpreting data). This model portrays science as pluralistic, not in the sense of a collection of different methodologies, but instead as a collection of paradigms each consisting of a core set of inter-dependent normative philosophical commitments that guide the practice of science. Conceiving of science in this way allows leisure researchers to incorporate contemporary concepts from the philosophy of science and move beyond an understanding and discussion of science as merely method.

But one of the fundamental difficulties we still face is how to get the leisure discipline to engage in this type of dialog. Perhaps we need to become more adept at embedding these discussions into sufficiently pragmatic issues related to the practice of leisure research while at the same time presenting the discussion as one of underlying philosophy or principles rather than merely methodology. One alternative starting point stems from the understanding that assessments of validity are based on judgments of the importance of different goals and threats to validity (Mishler, 1990). Because research goals may conflict with one another and threats to validity may be weighted differently, no single methodology for assuring the best interpretation can be defined. As a consequence difficult tradeoffs often have to be made with decisions guided by the underlying philosophy about the goals of the study and the nature of the phenomenon being studied. This can be illustrated with concrete examples using pragmatic decisions in leisure research design such as data representation and sampling.

Data Representation. It is with respect to this issue that the terms qualitative and quantitative are meaningful. Although Weissinger et al.'s (1997) previously cited analysis suggests this is changing, in many methodological texts still exhibit a strong bias toward quantitative forms of representation. A key problem is that the concept of "measurement" has become largely associated with the concept of "quantitative" as reflected by definitions of measurement as "rules for assigning numbers to objects." Rationales justifying this association can still readily be found: numerical systems establish

an object, interpretation-free procedure and allow researchers to employ the precise, economical, and powerful techniques of mathematical analysis without which "the problem of establishing functional relationships involving many variables cannot even be stated clearly, much less solved" (Anderson et al., 1983, p. 233). However, using numerical systems to represent data can carry a cost. Mathematics and statistics are not passive instruments (Danziger, 1985). To apply a numerical system on data, the empirical domain must be structured into basic elements with specific properties (e.g., independently identifiable; well-defined, mutually exclusive boundaries; etc.). Additionally, mathematics structures empirical systems into relations with certain properties such as addition, multiplication, and distance, while other properties such as intrinsic relations and qualitative changes are excluded. While quantitative structures may be appropriate for representing many leisure phenomena, they do not seem to fit well with other concepts central to leisure research. In this regard, reliance solely on quantitative data can at times result in the development of theoretical models that are in accord with the methodological requirements of mathematical systems rather than with the true nature of phenomena (Danziger, 1985). A potential conflict in goals for leisure researchers then is the trade-off between the economy and power of mathematical analysis versus maintaining the integrity of the phenomenon being studied. Recognition of this requires leisure researchers to situate discussions of quantitative versus qualitative within the context of the philosophy underlying views about reality and principles regarding its representation rather than primarily as a discussion of methods.

Sampling. One of the key concerns with respect to sampling is adequately representing the population. Especially in applied leisure research this concern is usually conceived as being a question of whether the results are "generalizable to" the population and is typically addressed through the use of relatively large, random samples. This conception of representativeness is particularly appropriate when the goal of research is to make statements about how leisure experiences, values, beliefs, etc. are distributed within a population. However, there are other ways of representing a population that reflect a fundamentally different set of sampling principles. For example, one can use purposive sampling where the goal is to select as diverse a sample as possible. With this sampling philosophy, the population is represented by capturing the range of experiences. However, under this sampling approach, something is lost—the ability to make statements about how those experiences are distributed across the population. But something is gained—by virtue of the smaller sample size the researcher can employ approaches to data collection that allow a more in-depth understanding of individuals. As with the issue of data representation, the researcher is faced with tradeoffs and the appropriate choice depends on research goals and assumptions about the nature of the phenomenon. As we increasingly delve into issues like sense of place; nature of experience; and how values are created and communicated through leisure activity, leisure researchers need to develop a broader discourse that discusses sampling in terms of philosophical as-

sumptions and principles rather than seeing sampling as merely application of methodology.

In summary, recent analyses of leisure journals indicate significant progress has been made in the last decade in broadening the scope of research approaches used in the discipline. At the same time I believe concerns about qualitative research raised by Dupius (1999) are a reflection that Sylvester's (1990) critique about the paucity of philosophy of science within discussions of leisure research are still relevant. For the point I hope to make here, the sentiments expressed by one of Weissinger et al.'s (1997, p. 445) respondents seems to apply: "I hope this . . . doesn't show up as another tedious round in the qualitative versus quantitative debate. Let's get on with doing good science and drop this nonsense." But at the same time I believe this statement also reflects one of my major concerns; that the heart of the problem is the focus on methods and a "just do it" mentality. My experiences working with students is that while they often come asking about qualitative methods, most of their questions actually seem to reflect issues at the level of philosophy and a difficulty in sorting out a coherent set of principles from the confusing array of literature now called qualitative research (understandable since very different sets of principles and philosophies coexist under this label). To do the good science called for by the anonymous individual quoted above, we need to ensure that the increasing number of qualitative studies achieves the promise of new and different types of insights rather than becomes merely a weak repetition of the types of understandings already better achieved by more traditional approaches. Unfortunately, it is my impression that too much qualitative leisure research I see reflects the latter situation. I believe this is a symptom of our failure to encourage a discussion that adequately incorporates language and concepts from the philosophy of science. A barrier we need to overcome is the challenge of making these discussions relevant to pragmatic issues in the practice of science without perpetuating the image of science as being primarily about method.

References

- Anderson, A. B., Basilevsky, A., & Hum, D. P. J. (1983). Measurement: Theory and techniques. In P. H. Rossi, J. D. Wright, & A. B. Anderson (Eds.), *Handbook of Survey Research* (pp. 231-287). San Diego, CA: Academic Press, Inc.
- Anderson, P. F. (1986). On method in consumer research: A critical relativist perspective. *Journal of Consumer Research*, *13*, 155-173.
- Danziger, K. (1985). The methodological imperative in psychology. *Philosophy of the Social Sciences*, *15*, 1-13.
- Dupius, S. L. (1999). Naked truths: Towards a reflexive methodology in leisure research. *Leisure Sciences*, *21*, 43-64.
- Mishler, E. G. (1990). Validation in inquiry-guided research: The role of exemplars in narrative studies. *Harvard Educational Review*, *60*, 415-442.
- Patterson, M. E., & Williams, D. R. (1998). Paradigms and problems: The practice of social science in natural resource management. *Society and Natural Resources*, *11*, 279-295.

- Sylvester, C. (1990). Overview: Special issue on leisure sciences, dominant paradigms, and philosophy. *Journal of Leisure Research*, 22, 281-282.
- Weissinger, E. (1990). Of revolutions and resistance: A response to philosophical criticisms of social scientific leisure research. *Journal of Leisure Research*, 22, 309-316.
- Weissinger, E., Henderson, K. A., & Bowling, C. P. (1997). Toward an expanding methodological base in leisure studies: Researcher's knowledge, attitudes, and practices concerning qualitative research. *Loisir et societe/Society and Leisure*, 20, 435-451.