Book Review

Deweyan Inquiry: From Education Theory to Practice

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James Scott Johnston, *Deweyan Inquiry: From Education Theory to Practice*. Albany: SUNY Press, 2008. 107 pp. ISBN 978-0-7914-9355-7 (hbk.) $35.00. ISBN 978-0-7914-9356-4 (pbk.) $23.95

In *Deweyan Inquiry: From Education Theory to Practice,* James Scott Johnston sets an ambitious and important goal—applying Deweyan inquiry to the problem of teaching children in K-12. He relies primarily on Dewey's (1938) *Logic: The Theory of Inquiry*, a work seldom applied to educational settings. For this alone Johnston should be applauded.

John Dewey (1938) defines inquiry as "the controlled or directed transformation of an indeterminate situation into one that is so determinate in its constituent distinctions and relations as to convert the elements of the original situation into a unified whole" (p.104). From this passage and several others, Johnston distills the distinguishing features of Deweyan inquiry —*context bound, problem driven* and, *self-correcting.* In separate chapters, he applies these ideas to four different educational contexts (science education, social science education, art education and physical education). He shows how art, science, social science and physical education (kinesthetics) all have different sets of problems and use different tools (conceptual and material) to solve these problems. Finally, inquiry is self-correcting. The situation begins as indeterminate and is converted to a unified whole. Between beginning and end a type of experimental method is used, which propels a self-correcting adjustment in the indeterminate situation.

Johnston gives his subject area chapters coherence by highlighting early on their unique context of inquiry. For example, in science education the context of

inquiry includes 1) kinds of techniques, 2) a focus on laws and theories, 3) symbolic formalization and communication, and 4) an ongoing evaluation of results. In contrast, the context of inquiry in bodily-kinesthetic education includes 1) a focus on sensation and movement, 2) physical exertion, 3) techniques and methods to improve performance and 4) criteria of experimentation. These very different contexts also reveal another strength of Deweyan inquiry—flexibility. On a practical level, the lists also make it easier for the reader to see aspects of inquiry that are unifying and how the problem shapes different modes of inquiry.

Sometime in early 1997, I had an "a ha" moment while reading Dewey's *Logic*. I had been trying to improve a pair of graduate research methods classes where students wrote an empirical research project over two semesters. I saw the obvious—a research paper was a form of inquiry. Like Johnston, I realized Dewey's insights from *Logic* could be applied to the classroom. Unlike Johnston, my experience is with mature graduate students (25-45 years old) in public administration. Clearly, public administration graduate students have a different set of problems and use a different set of tools than high school math or fifth-grade art students. Yet my teaching experience reinforces Johnston's insight that inquiry is context bound; and that conceptual and material tools will emerge to resolve a problematic situation.

Over 13 years later, insights from Dewey's *Logic* inform every aspect of my research methods class and my approach to supervising applied, empirical, capstone research projects. I facilitate student inquiry by providing the tools that helped them undergo the transformations of inquiry. One tool deals with the material of research—a notebook that transforms writing a large research paper into managing a project. It allows the students to keep track of their time, materials and ideas. It also provides an orderly process on the outside so that the doubt and confusion associated with the transformations of inquiry are less cluttered by anxiety. Order on the outside provides space for disorder (indeterminacy) on the inside (Shields, 2006).

A second tool deals with conceptual aspects of inquiry. This tool is operationalized as five unique conceptual frameworks aligned with a particular research purpose. The necessity of developing one of these conceptual frameworks forces students to confront the abstract landscape of inquiry. Conceptual frameworks also provide coherence to inquiry by linking the research purpose, literature, modes of data collection, modes of data aggregation or analysis, and organization of results (Shields, 1998; Shields, 2003; Shields & Tajalli, 2006).

The application of Dewey's *Logic* has opened the doors to a richer experience for students and myself. Incidentally, the papers have also received widespread recognition. Five have taken first place nationally among schools of public affairs and public administration. These papers have also been cited in World Health Organization Bulletins, journal articles, book chapters, and policy position papers. They are posted to an open access repository and in four years have been downloaded over 187,000 times in 130 different countries (315 papers). Perhaps most importantly, the students report constant "a ha" moments and refrains from their supervisors' "you have changed!" (see http://ecommons.txstate.edu/arp/).

I believe the application of Deweyan inquiry works for my students because they are motivated and interested in the subject. These mature students know they must complete this project to receive their Masters of Public Administration. They also work in environments rich in potential research problems. Interest and motivation are two topics Johnston does not discuss. If a student is just bored or uninterested in science, I am not sure the first steps of Deweyan inquiry can even be applied. At the very least, Johnston should have addressed these two practical constraints that make application of Dewey's ideas for younger students more challenging.

I found Johnston's chapters on art and art education and kinesthetics most enlightening. Drawing on *Art as Experience* and *Experience and Nature* he examines the role of quality and aesthetic experience in inquiry. Art and music are experienced. Both require the building of skills, instrumentation and conceptualization. Perhaps more importantly, they provide students with concrete evidence of transformation. Aesthetic experience also incorporates emotion and imagination.

In the best-case scenario, consummatory experience, a type of aesthetic experience, accompanies inquiry. It occurs, however, when students do the hard work and reflective thinking necessary to transform the indeterminate situation into a unified whole. The "a ha" feeling is a manifestation of consummatory experience. Successful mastery of a musical score can bring consummatory experience.

In the world of physical education and sports students can feel the transformations of inquiry in their bodies as they engage in the doing and making of exercise and sports. A good workout or a great game can evoke consummatory experience. Both art and kinesthetic development have an immediacy and potential to reinforce transformational experiences in ways that do not require intellectual maturity or that the student be interested and motivated to study a subject matter. Social science, science, or mathematics are, thus, less intimately tied to the aesthetic experience—a tangible reward of inquiry.

Some of my most successful students have played football in college. When they understand that the same organization, discipline, and feelings of mastery that made them successful football players can be applied to writing a research paper, they tap into the habit of inquiry they had developed as players. Just like football, research and writing requires practice and a game plan. It is not always an easy road, but that does not matter: it is no longer mysterious. And, they are sustained as they experience an intellectual transformation much like an athlete's physical transformation.

Johnston believes the educational bureaucratic rules and regulations make it challenging for teachers to apply Deweyan inquiry. This makes sense. Further, the challenge of developing student interest and motivation in pre-algebra or history classes filled with distracted 13-year-olds make applying Dewey's ideas extremely challenging. On the other hand, kinesthetic development and the arts offer concrete contexts where the skills and mindset of Deweyan inquiry can be more easily developed. Johnston should be commended for making and refining this connection.

I have two quibbles with Johnston. First, he constantly refers to "solving problems." The term "solution" suggests an end point. The term "resolve" better captures the ongoing nature of inquiry and that the problematic situation is, for a time, no longer indeterminate.

Second, this book needed at least one more careful edit. There were often inconsistencies between the bibliography and the text. For example, *Later Works* 13 was referred to at least 15 times in the internal references. Yet *Later Works* 13 did not appear in the list of references at the end. There is no excuse for this kind of omission. The initial discussion of the social science chapter is another example of an editing problem. I presume Johnston knows biology is not a social science, yet biology was included in the list of social sciences while political science and economics were not.

In sum, I found the work uneven. Johnston did a great job extending the theory of Dewey's *Logic* to the classroom. He showed how Dewey's inquiry could be applied in unlikely contexts such as a sports team or high school band. Occasionally, however, his application of Dewey's ideas to concrete situations (practice), particularly for the social sciences, was weak.

References

Shields, P. M. (2006). *Step by step: Building a research project*. (3rd ed.). Stillwater, OK: New Forums Press.

Shields, P. M. (2003). A Pragmatic teaching philosophy. *Journal of Public Affairs Education*, *9*(1), 7-12.

Shields, P. M. (1998). Pragmatism as philosophy of science: A tool for public administration. *Research in Public Administration*, *4*, 195-225.

Shields, P. M. and H. Tajalli. (2006). Intermediate theory: The missing link in successful student scholarship. *Journal of Public Affairs Education*, *12*(3), 313-334.

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