

A Review of Developing Reflective Judgment: Understanding and Promoting Intellectual Growth and Critical Thinking in Adolescents and Adults

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Most books that announce developmental theories describe the theories and set forward a research agenda. Too often, evidence in support of a particular theory is based on an initial study or two that provide some support for the theoretical claims. *Developing Reflective Judgment: Understanding and Promoting Intellectual Growth and Critical Thinking in Adolescents and Adults* (King & Kitchener, 1994) is a rare exception. The authors, Patricia King and Karen Strohm Kitchener, waited 15 years after the publication of their first study to provide "The Book" that describes reflective judgment. This delay was because it took that long to conduct the research necessary to test the adequacy of their ideas. The result is extraordinary.

The authors provide a clear statement of reflective judgment theory, making the book a valuable resource for college and university professors of adult/college student development and developmental psychology. They describe the development and refinement of the Reflective Judgment Interview (RJI), making the book a valuable resource for measurement specialists and college and university personnel interested in outcome assessment. Chapter 6, written in collaboration with Phillip K. Wood, contains a comprehensive summary of 32 studies (over 1,700 subjects) that have tested the claims of the theory, making it a useful reference for college student administrators and faculty as well as reflective judgment researchers. Kitchener and King provide useful

suggestions for developing students' reflective judgment, making the book a valuable tool for faculty and staff concerned about high school and post-secondary students' intellectual development. Finally, the book is a model for how to build and test a psychological theory, making the text a valuable tool for doctoral students and all who do psychological research.

In their lucid discussion of reflective judgment theory, King and Kitchener take great pains to do something else too rarely done: They describe what reflective judgment is *not*. It is not a comprehensive theory of human development, character, or moral development, though these are "desired outcomes of education" (p. 221) and research indicates they are interrelated with reflective judgment. Reflective judgment is not a theory of all aspects of intellectual development, though logic, critical thinking, and verbal skills are related and some of these abilities may be requisite for reflective judgment. Rather, reflective judgment, which draws its philosophical base from Dewey and Popper, occurs when "there is awareness of a real problem or when there is uncertainty about a solution" (p. 8). Thus, it is not an intellectual activity called for in all circumstances, but only in those that involve complex or ill-structured problems.

Kitchener and King assert that reflective judgment is a proper goal for educators and the highest form of reasoning about "the kinds of problematic situations that are truly controversial" (p. 7). Reflective judgments, when they occur, "are based on the evaluation and integration of existing data and theory into a solution about the problem at hand, a solution that can be rationally defended as most plausible or reasonable, taking into account the sets of conditions

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under which the problem is being solved" (p. 8). Thus, it is a rational ability that assumes that the approximation of truth, but not certainty, is possible.

Having described the types of problems that call for reflective judgments and the ideal of reflective thinking, the authors map the development of this ability within individuals. The reflective judgment model describes the "developmental progression that occurs between childhood and adulthood in the ways that people understand the process of knowing and in the corresponding ways that they justify their beliefs about ill-structured problems. In other words, the model describes the development of epistemic cognition." The model consists of seven stages that reflect the ability of a person to evaluate conflicting knowledge claims and "to explain and defend their points of view on controversial issues. The ability to make reflective judgments is the ultimate outcome of this progression" (p. 13). The authors boldly embrace stage theory and in Chap. 6 present the evidence that the reflective judgment model meets the criteria of a stage model. Longitudinal and cross-sectional evidence for development of reflective judgment is persuasive. The inclusion of Kurt Fischer's skill theory and James Rest's notion of complex stages reveals a sophisticated understanding of stages that will be informative to stage theory critics, who, no doubt, will scrutinize this aspect of the model.

The tool for assessing the development of reflective judgment stages is the Reflective Judgment Interview. Chapter 4, which discusses measuring reasoning, and Chapter 5, which describes development of the RJI, ought to be required reading for any graduate student contemplating developing an instrument for a doctoral dissertation. King and Kitchener present a model of what the process of instrument development should be. The authors put the development of the RJI in context by describing how reasoning skills have been assessed (Chap. 4). They evaluate these instruments against a list of criteria for assessing reasoning skills and show how each instrument reveals assumptions about problem structure and particular aspects of complex reasoning abilities. This section will be useful for researchers deciding which measure of intellectual ability to use; Kitchener and King would have them first ask, "Which ability and what type of task does one want to measure?"

King and Kitchener describe how the theory guided the operationalization of the construct and the development of the Reflective Judgment Interview, which consists of controversial, ill-structured

problems followed by a semistructured interview. Their careful examination of the psychometric properties of the RJI (Chap. 5), its reliability, and its validity data provide a cookbook for how to evaluate a measure. Noting the time and expense of conducting interviews, they briefly (because for the most part they stick to what is empirically supported) describe some recent attempts to develop measures that avoid the time and expense of the RJI.

Typical of the presentation of research findings described in Chapter 6, "Research on the Reflective Judgment Model," the discussion of gender differences is concise, clear, and does not sacrifice any of the complexities of the findings. This is a welcome discussion, given the current climate embracing simplistic dualistic claims about men and women. King and Kitchener discuss 17 studies that included males and females: Three did not examine gender differences, seven found no differences, six found males higher, and one reported a Class \times Gender interaction with traditional age women juniors and nontraditional age freshmen (but not traditional age freshmen) scoring higher than their male counterparts. In addition, they report Wood's analysis of the Kitchener and King longitudinal data, which found differences in growth spurts suggesting differences in timing of developmental changes. Given the confounds of differential opportunities, maturation rates, and timing of development, they conclude that a conclusion about gender differences in reflective judgment is "premature."

The summary of research on reflective judgment is detailed and presents compelling evidence for the developmental nature of reflective judgment and its relationship to critical thinking. However, it is interesting to note what has not been investigated. The only cross cultural work done to date has been comparing a U.S. and German sample of college students. Little is known about the effects of ethnicity, culture, or race on reflective judgment. Relatively little is known about the two extremes of reflective judgment stages, the dualistic thinkers (stage 1 and 2), and the reflective thinkers (stage 7). Finally—and this is the greatest weakness of the book or perhaps the research agenda—little is known about the efficacy of the different approaches they suggest for promoting development of reflective judgment. Suggestions in Chapter 9 for promoting reflective judgment are based on the authors' considerable experience as professors in higher education. These suggestions provide practical ideas for anyone interested in promoting, or even just understanding, col-

lege students' reasoning. They also are a valuable list of suggestions for future studies on the efficacy of suggested strategies.

The authors made this book "user friendly." Tables and summaries at the end of the chapters help a reader assimilate familiar information and accommodate new, complex ideas. Charts and graphs summarize complex research findings and depict complicated features of the model. The RJI is included with instructions for administration and the rating process is described, though one needs to be a "certified rater" to score the interviews. This requirement has probably affected the number of studies using the RJI. It probably has also yielded better data, which makes comparisons across studies more valid and the RJI a valuable tool for reflective judgment researchers.

This book may be of interest to at least one additional audience. There is a growing discussion among social constructivists (e.g., Bohan, 1994; Smith, 1994) regarding the dilemma of valuing multiple points of view, while trying to establish criteria for adjudicating between conflicting claims that arise from diverse contexts. The reflective judgment

model, with its emphasis on argument and evidence rather than absolute truth and certainty, may provide a corrective to what is increasingly being seen as the rampant relativism of constructivist theories. Reflective judgments, by definition, are open to revision in light of new evidence and knowledge is viewed as neither absolute nor noncontextualized. Reflective judgment redirects attention from the question "who's right?" to "how do you know?", perhaps a better starting place for all of us, especially educators.

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