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Education for Thinking

Deanna Kuhn

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Deanna Kuhn's *Education for Thinking* is a sustained investigation into skills of inquiry and argument and their development in school. After some general arguments about the goals of education, she takes each sort of skill in turn, first inquiry, then argument. In each section, she begins with the importance of the skills, describes them and the consequences of their absence, and ends with her own attempts to teach them. She focuses mostly on middle-school students, and much of her book is a study (and indictment) of the educational system prior to college. Still, many of her claims, arguments, and findings apply to college-level philosophy classes, and while Kuhn's observations will likely be unsurprising to philosophy instructors, her account of those observations is helpfully and insightfully comprehensive.

Most philosophy classes hope to engender and develop students' (i) understanding of certain issues, positions, and arguments; (ii) critical reading skills; (iii) critical writing skills (perhaps in conjunction with general English skills); and (iv) critical thinking skills. Sometimes a day or two is spent on the last three. We might instruct students to read a text several times, first for the general structure and point, then for the claims and arguments, and finally for defenses and criticisms of those claims and arguments. We might recommend that they read papers to roommates or family, or at least aloud to themselves. We might go over some of the basics of formal or informal logic. Some of us go further in class, working through selections from the assigned texts, presenting and explaining sample outlines, grading sample papers, working bits of logic into our presentation of the material or our paper assignments and evaluations, and so on. For the most part, though, there is an understanding that these skills will develop with practice, even without much focused instruction. Certainly this is true of some students. But Kuhn calls it into question in the general case.

Kuhn has three main aims in her book. The first is to argue that these skills should be taught in middle- and high-school. To this end, she first argues that skills of inquiry and argument are generally important and valuable, of which I think most philosophy instructors are already convinced, and then demonstrates the very great extent to which these skills are wanting, even among adults. This point is not novel—Kuhn herself addresses it in her 1991 book, *The Skills of Argument*—but critical thinking skills are necessary for doing philosophy, and so their absence in our students should be of interest. A good illustration of this interest is Kuhn's chapter 7, which is the second of three chapters on argument, and which begins with two studies of college students' argumentative skills.

The first of Kuhn's studies involves a City University of New York (CUNY) admission exam. Students are provided with a short opinion article and two graphs displaying some supporting, some contradictory, and some irrelevant data. The instructions are to "state the major claims made in the reading selection and explain how data in the two graphs appear to support and/or contradict those claims." Many students struggle with this assignment, failing the test one or more times. "Significant percentages" of community college students never pass it.

The second study involves students' evaluations of two arguments, one explanation-based and one evidence-based. Students are asked to choose the stronger and justify their choice; which they

prefer is not as important as the strengths and weaknesses of the arguments that they cite. Many students give bad, “nonepistemic” justifications, such as “it’s true” or “it sounds better.” Even education graduate students give genuine strengths of explanation-based arguments (“it gives a reason”) and evidence-based arguments (“it really happened”) only 60% and 76% of the time respectively, and cite genuine weaknesses of explanation (“it could be wrong”) and evidence (“it doesn’t say why”) only 26% and 10% of the time respectively.

One frequent lesson in Kuhn’s work, which remains in this book, is that many students do not possess basic thinking skills, on which philosophy and philosophy assignments rely. Completing something like the CUNY task—understanding a written argument and evaluating it in light of data, such as the results of thought experiments—is necessary for even beginning many standard philosophical tasks. Identifying the strengths and weaknesses of argument types—recognizing and understanding the merits and demerits of arguments independent of one’s own views—is central to philosophy. In these particular cases, Kuhn argues that many students lack the ability to keep separate their own views, the author’s views, and the external data. Earlier, when studying skills of inquiry, Kuhn argued that many middle-school students struggled with inquiry tasks because they were unable to represent and describe data without trying to provide an explanation of it; the present inability to separate common-ground data from a contentious theory, or one’s own views from someone else’s argument, is strikingly similar.

This brings us to Kuhn’s second aim, which is to more systematically describe these skills and their development. I find this especially valuable when evaluating and responding to students’ work. It is one thing to know that a student has failed to answer a question, and another to know that she has failed to answer the question because she has not developed the ability to keep her own views separate from the author’s, or because she cannot separate evidence from theory and thus does not possess the concept of a counterexample or countervailing evidence, or because she does not understand what makes an argument good or bad. If a student misrepresents an author’s position, it is tempting to simply comment that she is wrong, perhaps adding a brief explanation of the author’s actual view. But if she is in the same boat as many CUNY applicants—if she instead stated her own view, or altered the author’s view to better fit the evidence, because she does not know how to do anything else—then merely explaining the error might not help at all. Some students will, of course, pick up on the difference. But many will not.

One of the largest challenges here, Kuhn argues, is instilling intellectual values. Explaining the author’s real position to the student might be unhelpful because the student does not understand the value of distinguishing others’ views from her own. Similarly, she might not understand the value of separating evidence from explanations, or of giving good reasons for views rather than simply asserting them. Indeed, one cannot teach philosophy for long without fielding student questions along exactly these lines. Kuhn argues that without such intellectual values, critical thinking skills cannot truly develop. We can tell students what features make arguments good, or that they should evaluate arguments in light of evidence, but without an understanding of the *value* of good arguments or agreement with evidence, Kuhn contends, such instruction is unlikely to contribute in any serious way to the development of analytical skills—to addressing goals (ii)–(iv) above. It is important not only that students develop skills for engaging in critical thinking as an activity for getting a grade and advancing their degree, but also that students understand that activity and its value.

This leads to Kuhn’s third aim, which is to investigate the implications of these claims for educational practice. Kuhn describes her own attempts to teach skills of inquiry and argument to

adolescents, and again her discussion of the latter skills is of particular interest. She describes a series of ten activities, spread over sixteen 90-minute sessions and carried out in groups of four to eight academically disadvantaged students with adult coaches. Students are divided according to their views on capital punishment, preparing for a final “showdown” in which opposing teams would present and respond to arguments. Each activity has a set of cognitive goals, such as “reasons underlie opinions; different reasons may underlie the same opinion,” “some reasons are better than others,” and “opposing reasons can be countered.” Many activities are marked by repeated cycles of scaffolded work, either individually or in pairs, and group discussions with coaching. Although the goal is to teach general intellectual skills, the sessions uniformly focus on capital punishment.

Kuhn provides partial transcripts of dialogs between students about capital punishment both before and after the sessions. The differences are remarkable. Initial dialogs are characterized by a lack of engagement. Some students simply state their positions and finish. Others discuss the issues, but only superficially, with the goal of a practical compromise rather than an agreement about the reasons. Final dialogs, in contrast, display not only more interest in the reasons behind the views, but also more argumentative strategy. The goal is explicitly to convince the other of one’s view (“You’re coming close to my point,” “That’s true, but the point is. . .”). Students seek to identify inconsistencies in positions (“Remember that statement that you said”), ask for clarifications (“You need to define what your second chance means”), and raise examples (“Let’s say I killed your mother”) and analogies (of a parent and child) to try to draw out relevant intuitions. These contrasts are particularly notable because the initial shortcomings—stating views without argument and seeking to avoid conflict rather than a better, more nuanced understanding of the issues—are common problems in college philosophy papers, too. Kuhn argues that the final dialogs show that the students have begun to view argument as more than the mere juxtaposition of positions—as a valuable undertaking with a purpose beyond the victory of silencing the other participant.

Kuhn’s results are imperfect, and she emphasizes that students must practice to continue developing their skills. One important question, which is acknowledged but not entirely answered, is whether the students’ skills transfer to new domains—whether they have learned to argue rather than merely to argue about capital punishment. But this concern might also be addressed with further experience, especially with different content. Finally, many of the activities are not, as they stand, well-suited to large philosophy classrooms, older students, and relatively fixed curricula. Thus, in a way, this most practical section of the book is the least practically applicable to teaching philosophy.

Nevertheless, I think Kuhn’s extended experiment is helpful for a number of reasons. First, it is encouraging to see that there is progress to be made even starting from a far more difficult position than many college students’. Second, Kuhn’s activities highlight the importance of genuine conversation, either among students or between students and instructors, in developing thinking skills. This is difficult to incorporate into large lectures, and of course its value will vary from student to student, but her arguments are persuasive from a developmental standpoint, and so again are at least relevant when evaluating and commenting on students’ work. And third, although the activities cannot be easily incorporated into lectures, most of them can at some level be adapted to small group exercises or short written assignments, and thereby be incorporated into many standard philosophy classes: The activities are most generally described as, e.g., “evaluating reasons,” “examining and evaluating opposing side’s reasons,” and “generating counterarguments to others’ reasons.” Teachers already often assign short, highly-structured exercises with an eye

towards meeting goals (ii)–(iv) above, and here Kuhn is valuable both for identifying a sequence of intermediate goals and for explaining her own attempts and successes in meeting those goals.

Some college students have, to some degree or another, already developed thinking skills, and in those cases, our task is the relatively easy one of encouraging and guiding their growth. But with many students, the task is more difficult. Kuhn sheds light on the foundations that must be laid to begin teaching these skills, and so helps us understand where our students are coming from cognitively and how we can better design our assignments and exercises. There can be no single recipe for every student in every school, of course, but Kuhn provides valuable direction.

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