

“Minding” the Gap

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It is a rare pleasure to respond to a well-argued and carefully researched essay that examines some deep questions about a topic of great interest to me: the relationship between “mind” and “education.” In fact, the essay explores one of the most difficult aspects of the topic, the potential relation between function and substance. Among its educational merits, Daniel Fisherman’s essay points to the significance of the relationship between Theories of Mind (ToM) and our conceptual understanding of “education,” clarifies the notion of “active content,” and argues for the relevance of “transformation” in terms of the development of a “cognitive perspective.”

The body of the essay deals with ToM details, which, while tempting to discuss, are beyond the scope of this response. Rather, my purpose here is to simplify and highlight what I believe are important aspects of the essay for educators who may not be fluent in the complex theoretical intricacies of ToM.

As I understand his argument, Fisherman makes four moves to make the case for “a complete reduction” of the normative view of education to a working model of mind. He begins by distinguishing two conceptions of education. The first view of education is labeled a “broad normative ideal” (E1), which is advocated by Israel Scheffler and myself. The second view is labeled a “narrow implemented conception” (E2), which Scheffler has called the computational model. Fisherman uses the distinction to set up a “litmus test” for a model of mind; that is, it must meet the requirements for the broad normative ideal.

Fisherman then characterizes Scheffler’s view of the educated person (E1) as one who *uses information* to “actively generate principles” that “locate our beliefs and actions within a framework” to “recognize patterns to create new conceptual forms — that is, new information, and transform perception and thought.” Fisherman notes that, “in contrast to the passive quality of the narrow view, where information is simply stored and retrieved as efficiently as possible, Scheffler’s notion entails the *“use of information to actively generate new understanding, thinking, and perception of the world that necessarily modifies our behavior”* (emphasis added). He concludes that, “in short, the normative ideal seeks to transform the individual.”

Next, Fisherman proposes to provide an account of IP that “posit[s] a notion of active content, content that causally acted to transform the mental operations described by Scheffler — perception, thought, disposition, and discrimination.” He argues that the social learning theory of L.S. Vygotsky “does just that” and thus, meets the litmus test.

Finally, Fisherman provides a functional account of a computational model, based on the work of Daniel Dennett and Willard Miranker, that “provides the complete physical reduction of social learning theory” and thus, “works” to support “a fundamental transformation of the individual” in the educational sense.

CLEARING THE MIND

Some points of clarification are in order regarding Fisherman's first two moves. In my early essay,¹ "Does Mind Matter?," I argue that information processing (IP) — and its attendant problems — was the source of the defeat of any computational models — not the other way around. My argument is based on John Searle's critique, which included among others, several problems associated with the notion of a central processor in humans and the explanatory necessity of "homunculi" to account for the workings of IP. In short, I argue that to the extent any computational model is dependent on IP theory, that model is suspect.

Another critical point I make in that essay is that "information" *sui generis*, is *not* a feature of normative education. Similarly, in his description of an educated person, Scheffler is *not* talking about the importance of information, but rather of "knowledge" and "understanding." In fact, Scheffler notes that, "the *contrast* of education with information is, parenthetically a very important point to make."²

The clarification suggests some potential slippage in Fisherman's move, as his litmus test seems to use "information" as a synonym for "knowledge" and the previously labeled "implemented conception" (E2) or computational model, is now an "ideal." Slippage may also explain why the litmus test involves "*using information to actively generate new understanding, thinking, and perception.*" In short, Fisherman operationalizes the substantive features of Scheffler's description, and what were mental *contents* are now mental *operations*.

A further comment is necessary in respect to the final moves of Fisherman's argument. While it would be foolhardy to deny the influence of psychological theories on education, it is in my view equally imprudent to ignore the procedural or *process orientation* of those theories. Put simply, the normative view of education is concerned with the substantive aspects of education — *what it is that is worthwhile knowing* — whereas the psychological theories are quite rightly attempting to explain the procedural aspects of *how we can come to know* in the first place, which may or may not include what is worthwhile.

"MINDING" THE GAP

Both Fisherman and I speak to the perception of a "gap" between theories of mind and our understanding of the concept of "education" in the normative sense. If we accept the premise that education is in some important ways the "development of mind," then it seems to be imperative that we have an account of what is going on *in terms of the mind* when we are talking about educational endeavors.

Reasons for the gap become obvious when we consider that the work on ToM is "housed" in the fields of philosophy of psychology, cognitive science, and cognitive psychology, whereas the work on conceptions of education is "housed" in the field of philosophy of education. The gap widens with the "in-house" differences between an account of the concept of "education" and an account of what is going on in schools under the name of education.

Any attempt to "bridge the gap" between mind and education requires an account that bridges profound differences between (i) the disciplinary canons of

philosophy and psychology, (ii) the realms of conceptual and empirical inquiry, and (iii) functional and substantive considerations. Perhaps Searle recognized the gap when he noted his failure to “understand what his work in philosophy of mind had to do with education.”³

Educators have some options in respect to the “gap.” For example, we could simply *ignore the gap* and dismiss the work on ToM as not relevant to the concept of “education.” However, when we realize that many central and pervasive ideas about teaching and learning are based on theories from ToM and cognitive psychology, it is hard to justify a lack of relevance.

Fisherman chooses a different option in his essay. He *eliminates the gap* by reducing our notion of the educated person to a computational model. There are, in my view, some serious worries about this option. The first worry, often framed as “naturalizing the mind,” is that the substantive considerations of interest on the normative view of education could be eliminated in favor of whatever is the product or outcome of the function. Secondly, the reduction of what we mean by “mind” to an account of how it works, is a reduction of significant explanatory value. As Gilbert Ryle points out in his seminal work on the topic of “mind,” “England cannot be solely described in seismological terms.”⁴

A more promising option — *bridging the gap* — can be gleaned from Fisherman’s essay. He provides what may be a “leading edge” account of brain activity that explains how consciousness “works” in respect to learning and the transformation of an individual’s cognitive perspective. In respect to the Miranker model, Fisherman acknowledges that it is “questionable from the start whether the model truly qualifies as a type of IP theory.” Although his use of Miranker is necessary to pass Fisherman’s own litmus test, I would suggest that the model offers some exciting possibilities for alignment with emerging models of mind such as “connectionism.”

I conclude the essay “Does Mind Matter?,” to which Fisherman refers, with the note that, “it is hoped that our future considerations will reflect our understanding that while psychological definitions, descriptions, and explanations are functional tools that may be useful for psychological research, they in themselves are neither descriptions nor definitions of educational objectives.”⁵ Fisherman raises another area of hope — that if we follow the science behind ToM, we can explore new models of mind which allow us to move beyond IP.

I have often wondered why researchers continue to try to “fit” what we mean by the human mind — beliefs, goals, fears — into what can be demonstrated by a mechanical, biological, or functional system. Why not begin with an examination of the important substantive aspects of educated persons and create a model of mind based on those aspects?

I trust that Fisherman will continue “minding the gap” and hope that his work inspires others to continue the exploration.

1. Shelby Sheppard, “Does Mind Matter? Education and Conceptions of Mind,” *Educational Theory* 51, no. 2 (2001): 243–258.

2. Israel Scheffler, "The Concept of the Educated Person," in *Work, Education, and Leadership*, eds. Israel Scheffler and V.A. Howard (New York: Peter Lang, 1995), 83.
3. *Ibid.*, 243
4. Gilbert Ryle, *The Concept of Mind* (Chicago: University of Chicago Press, 1949), 327.
5. Sheppard, "Does Mind Matter?," 258