# "Education Itself" and Dewey's Use of the *A Priori* in Educational Theory

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John Dewey's deeds belie his words. Received wisdom has it that Dewey rejects the *a priori*. He rejects, that is, any view claiming truths exist that can be known independently of experience. In accordance with this tradition of interpretation consider, for example, Dewey's complaint in *The Quest for Certainty* that: "For over two thousand years, the weight of the most influential and authoritatively orthodox tradition of thought has been … devoted to the problem of a purely cognitive certification (perhaps by revelation, perhaps by intuition, perhaps by reason) of the antecedent, immutable reality of truth."[1] Patient lot that we are, continues Dewey, you would think that philosophers would have gotten a clue over the past two thousand years of failure to find a purely conceptual certification for their views. However, contrary to his apparent rejection of the *a priori*, the argument Dewey gives in *Experience and Education* is designed to show both what he calls "traditional education" (subject or teacher centered education) and what he calls "the new education"[2] (student or child centered education) fail in fidelity to a concept. Dewey calls this concept "Education itself," contrasts it to -isms (even "progressivism") about education,[3] and asserts that for educational theory:

> The basic question concerns the nature of education with no qualifying adjectives prefixed. What we want and need is education pure and simple, and we shall make surer and faster progress when we devote ourselves to finding out just what education is and what conditions must be satisfied in order that education may be a reality and not a name or slogan. It is for this reason alone that I have emphasized the need for a sound philosophy of experience.

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In this way Dewey argues *a priori* against his opponents that, unlike the theory of education he is attempting to develop, their ideas fail, as Dewey says, "to be worthy of the name *education*."[4]

Explanation of the discrepancy between what Dewey says and what Dewey does is the problem undertaken in this paper. Getting Dewey out of this jam requires distinguishing between two different senses of the *a priori*: the methodological *a priori* and the metaphysical *a priori*, both of which may be found in Dewey's thinking. Trading on this distinction permits explanation of what it means to say traditional education and the new education fail of the concept "Education itself." Nonetheless, providing that explanation requires Dewey to endorse a non-substantival metaphysics that is *a priori* descriptive of any world supportive of inquiry. It is this non-substantival metaphysics of which Dewey's opponents in *Experience and Education* fail and it is this failure *a priori* that describes their inadequacy to the concept "Education itself." However, Dewey's proof against his opponents also positively establishes metaphysical standards broadly regulating methodological adequacy for acceptable scientific theory in education. While Dewey denies substantival, dogmatic truth approaches to the *a priori*, he accepts methodological approaches to the *a priori* that state postulates guiding specific inquiries. Yet, in accepting the methodological *a priori,* Dewey commits to an *a priori* that, although non-substantival, endorses a metaphysical view about the world.

Dewey puts both ideas of the *a priori* into play when he says he bases the reconstruction of educational theory offered in *Experience and Education* on the assumption that "amid all uncertainties there is one permanent frame of reference: the organic connection between education and personal experience."[5] That the *a priori* is at work in Dewey's argument may be immediately recognized by his use of the word "permanent" in description of his frame of reference. The *a priori* is, traditionally, all about what is taken to be permanent. The permanence of Dewey's frame of reference describes his use of the methodological *a priori* in his argument against traditional and progressive education. What may not be so immediately recognized is the sense of the *a priori* implied by Dewey's use of the word "organic" in his description of the connection between education

and experience. The sense of the *a priori* contained in the idea of "organic connection" describes Dewey's commitment to a metaphysical sense of the *a priori*.

Raymond Boisvert is correct to complain that Dewey's use of the term "organic," especially in epistemic contexts, is unclear, functioning more as a code word to judge of other philosophers whether they are friend or foe than as a term of philosophic substance.[6] Nonetheless, Boisvert and other commentators agree that the elements central to Dewey's use of "organic" are "dynamic interdependence" and "real difference in the midst of identity."[7] Attempts at clarification of Dewey's use of "organic" may be brought out of the metaphorical, esoteric, and cryptic and into the theoretic, pragmatic, and scientific by turning to Dewey's *Logic: The Theory of Inquiry*, published in the same year as *Experience and Education*. In his later *Logic* Dewey discusses a type of universal proposition, one residing in the logical space between definitional and inductive statements of generality. This sort of statement, what Dewey calls a hypothetical or hybrid universal, describes a kind of generality that asserts a non-analytic but necessary connection between or among things in the world. Hybrid universals provide a clear and apt avenue to traverse in explicating Dewey on "organic connection."

In the *Logic*, Dewey takes up the issue of general propositions in terms of their contribution to processes of inquiry. Taking his cue and developing his categories of possible expressions of generality from what he calls the well-known ambiguity of "all" in its use as a logical operator, Dewey argues universals are symbols. Generality, considered as symbolic content, can be expressed in at least three distinct kinds of propositions: generic statements, universal statements, and hybrid universal statements. Generic statements express contingent relations of commonality found among like things. "All crows are black" is a generic proposition insofar as it can only be taken to mean, "All crows seen so far have been black." There may always be an albino crow waiting in the trees just up ahead, around that bend in the road. Unlike generic propositions, universal propositions express necessary relations between or among abstract characters or between abstract characters and existent things. Two quite distinct types of universal propositions express these very different types of generality.

First, there are propositions that describe necessary conceptual relations as in the proposition, "All squares are four-sided." This proposition, suggests Dewey, really means, "squareness is a kind of four-sidedness." No one needs to test to see if a three- or five-sided square can be created. Squareness, as a kind of four-sidedness, exhausts one of the spatial possibilities, namely, shape, for the creation of squares. Squares, if any do actually exist, may encompass greater or lesser areas but any area any square encompasses will always be bounded on four sides. In short, squares are defined as four-sided.

Second, though, are more problematic universal propositions that express non-conceptual but nevertheless necessary relations between or among abstract characteristics and existent things. This second type of universal proposition lies midway between generic and strictly universal propositions. Dewey calls this type of proposition a hypothetical or hybrid universal. On the one hand, hypothetical universal propositions are non-analytic and have existential import. That is, they assert the existence of the things they are about but describe relations between or among abstract characteristics that do not exhaust the possible states of affairs to which they may be applied. On both counts hybrid universals resemble generic propositions. On the other hand, hypothetical universal propositions assert that the relations they describe are necessary relations and, in this regard, they resemble purely universal propositions. What makes hypothetical universal statements *hybrid* universal statements is that they simultaneously exhibit characteristic features of generic statements and of definitional statements.

Hypothetical universal propositions are in large part accepted as true, according to Dewey, not because of their epistemic status, but, because of the function they serve in a field of inquiry. That function is to guide research. Hypothetical universal propositions guide research in a field of inquiry in two ways. First, and positively, they provide a frame of reference by suggesting ideas and experiments for inquiry in a field. Positively, this is all they do. Second, and negatively, they rule out at the conceptual level avenues of inquiry as dead ends, not worth the effort of further examination. To count as a legitimate member of the class of hypothetical universal propositions a proposition must fulfill both

these functions. Statements that fail of one or the other function of a hybrid universal statement are either generic statements or universal statements. Universal statements do not have existential import and, therefore, cannot be said necessarily to concern description of things in the world. Generic statements are not necessarily true propositions and, therefore, cannot serve as sure guides in further inquiry. Hybrid universals are presumptive. They presume to make claims of necessity about things in the world.[8]

A second reason to believe Dewey may have meant to use the phrase "organic connection" to mean "hybrid universal" is that in *Experience and Education* Dewey summarizes the educational theory he is developing in the form of a hybrid universal when he says:

> Continuity [the principle that experience always continues temporally from the past to the present and into the future] and interaction [the principle that experience always involves a transaction between the psychology of the person having the experience and the physical and social environments in which the experience occurs] in their active union with each other provide the measure of the educative significance and value of an experience.[9]

The word "measure" gives a clue to the logical status of the claim. Dewey is presuming that the educational value of an experience is functionally equivalent to some relation of the qualities of continuity and interaction in an experience. Dewey seems to be arguing that a functional equation obtains between two universal qualities of personal experience and the educational value of that experience. "Functional" in the phrase "functional equation" is to be understood in a mathematical sense, as a set of variables the relationship among which may meaningfully be modelled mathematically.[10] The result of doing so is to make a law-like statement in educational theory. Or, if law-like sounds too strong or too old-fashioned, then revise the claim to say that equating the educational significance of an experience to the qualities of continuity and interaction the experience exhibits develops a general heuristic for educators to use when constructing educative experiences for students. Once we learn to

interpret, organize, and put to use the variables of continuity and interaction in constructing lessons, we have at our service, as a guide to further research, a statement in educational theory along the lines of a hybrid universal.[11]

A general heuristic of the sort described by the functional connection between the educational value and the continuity and interaction of an experience fits description Dewey gives of the organic in his later *Logic*. There he says:

> Organic behavior is a strictly temporal affair. But when behavior is *intellectually* formulated, in respect both to general ways of behavior and the special environing conditions in which they operate, propositions result and the terms of a proposition do not sustain a temporal relation to one another…. It was a temporal event when Crusoe found the footprint in the sand. It was a temporal event when Crusoe inferred the presence of a possibly dangerous stranger. But while the proposition was *about* something temporal, the *relation* of the observed fact as evidential to the inference drawn from it is non-temporal. The same holds of every logical relation in and of propositions.[12]

The law-like interpretation of the theory Dewey develops in *Experience and Education* also fits all the criteria by which hybrid universals may be recognized. First, the functional equation between the educational value of, and the continuity and interaction in, an experience is a universal proposition, non-temporal in its orientation and presumptive of the necessity of the mutual connection obtaining between the variables of interest. Second, the universal proposition proposed by Dewey carries existential import in that it purports to be about actual attempts to improve instruction. Third, the proposition connecting educational significance to continuity and interaction presents as a testable hypothesis ready to be refined through use among teachers wishing to improve instruction. Fourth, by asserting a logically universal approach to understanding processes of teaching and learning, Dewey rules out traditional and progressive approaches to schooling on *a priori* grounds.

The sense in which Dewey is able to rule out traditional and progressive education *a priori* at this point in his argument is in terms of the methodological *a priori*. Responding to criticism from William Ernest Hocking that Dewey relied regularly on *a priori* claims to carry through his arguments, Dewey remonstrates:

> That there are *a priori meanings* in an empirical sense, I have never denied nor doubted. It is the nature of genuine meaning to be prospective and thus *temporarily a priori*. When the nature and function of these meanings are clarified they form what may be called postulates. The value of postulates to science is undoubted. The conversion of meanings-as-postulates into truths, already alluded to, is, once more, natural in the philosophy of Mr. Hocking, but from my point of view it is fallacious. I would have postulates recognized for what they are and not frozen into dogmatic truths.[13]

Dewey's response to Hocking frames Dewey's criticism of traditional and progressive education at the level of the temporarily or methodological *a priori*. Sure, traditional education tends toward harsh and exacting external arrangements for schooling, but the source of that harshness resides in uncritical acceptance of the idea that students already hold by nature or can be made to hold by virtue of schooling the belief structure sacrosanct in some system of education's credo or some educator's heart. "The trouble with traditional education," as Dewey sums his complaint against it, "was not that it emphasized the external conditions that entered into the control of experiences but that it paid so little attention to the internal factors which also decide what kind of experience is had. It violated the principle of interaction from one side." Dewey immediately extends this line of criticism to include progressive education by adding, "But this violation is no reason why the new education should violate the principle from the other side"[14] by paying it too much attention. Both traditional and progressive approaches to educational theory take an impoverished look at education by prejudicially underrating a variable important to understanding processes of teaching and learning. Both, but from different points of view, work with a flawed conception of education. That is enough to rule them out *a*

*priori* as methodologically useless to understanding education. As Dewey points out in the very first paragraph of *Experience and Education*, "It is the business of an intelligent theory of education to ascertain the causes for the conflicts that exist and then, instead of taking one side or the other, to indicate a plan of operations proceeding from a level deeper and more inclusive than is represented by the practices and ideas of the contending parties."[15] The logic of organic connections interpreted as hybrid universals transcends debate between traditional and progressive education by offering more adequate understanding of education than either of Dewey's competitors can provide.

However, the failure of traditional and progressive education at the methodological level of the *a priori* reveals a more fundamental failure at the metaphysical, but non-substantival level of the *a priori*. The logic of hybrid universals entails two metaphysical claims about the nature of the world. Dewey illustrates these *a priori* features of the world in a thought experiment he offers in *Art as Experience*. Dewey asks us to think of a range of possible worlds and to consider in which of those worlds aesthetic experience can occur and in which it cannot. The worlds of Dewey's thought experiment range from the extreme of a world of absolute permanence to the extreme of a world of absolute relativity. A world exhibiting patterned change mediates these extremes. Only the world of patterned change can support aesthetic experience. In a world of utter flux, Dewey argues, change would never move to a close. Ditto, he asserts, for a world of utter stability. However, the world of patterned change permits loss and recovery of equilibrium with one's surroundings, permits the intense pleasure of passage from disturbance to harmony, from emptiness to fulfillment. This is the world in which we live.[16]

Given Dewey's connection of education to experience via the concept of continuity, the same reasoning applies to educative experiences. Educative experiences cannot occur in worlds characterized by mere flux or worlds characterized as already complete. In both cases, but from different sides, these worlds violate the condition of continuity in an educative experience. The unchanging world offers only an eternal present that excludes past and future. The entirely chaotic world offers only an eternally recurring specious present,

one unconnected to what has gone before and disconnected from any future expectations. Dewey relates these possible world considerations to theories of education when he says in *Experience and Education*, while speaking of progressive education as a reaction to traditional education, that "Just because traditional education was a matter of routine in which plans and programs were handed down from the past, it does not follow that progressive education is a matter of planless improvisation."[17] Routinization and improvisation in schooling, respectively, mirror worlds of permanence and flux. Dewey's experimental and experiential educational theory mirrors the world of patterned change.

The point may be taken one step further by considering the definition of inquiry Dewey offers in the later *Logic* 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*."[18] A world in which inquiry exists is a world of multiply determinable situations in which attempts at carrying out determinations of situations reveal patterns in processes of change effecting the situations under consideration. Thus, Dewey asserts two fundamental, metaphysical features of the world: 1) multiple logicibility[19] and 2) patterned change. These two features describe a world in which inquiry is a categorical feature, a feature on the order of a first principle by which things may be classified into fundamental kinds.[20] Dewey had this metaphysics in mind as early as 1915 when he suggested that we "mark off the metaphysical subject-matter by reference to certain irreducible traits found in any and every subject of scientific inquiry." These traits, he goes on to say, include diversity of existences, interaction with elements in the surrounding environment and change, conceived as alteration of exhibited qualities over time in sets of existences.[21]

Traditional and progressive education run afoul of inquiry considered as a categorical feature of the world. By trying to (pre)define education as of a certain kind before looking into education experimentally, traditional education sleights the metaphysical principle of multiple logicibility. By postulating equal educational value in any experience whatsoever, progressive education spurns the metaphysical principle of patterned change. Both, therefore, are ill-fit or

out of sync with the world in which they try to operate, and for that reason are unacceptable at the level of the metaphysical *a priori*. We know *a priori* that no theory of education that begins in any significant way to deny or disallow inquiry into or experimentation with its processes and practices can measure up to the concept of "Education itself" or be "worthy of the name *education*." On the other hand, the nascent theory described by Dewey in a hybrid universal proposition linking educational value of an experience to values of continuity and interaction in an experience encourages, even demands inquiry into its workings. Dewey's theory may be wrong, but we cannot know it to be wrong *a priori*. We have to try it out.

Now, none of this commits Dewey to a substantival metaphysics. The principles of multiple logicibility and patterned change say nothing in particular either about the content created as a result of any process of logicization or the outcome of any investigation into patterned change. Instead, Dewey's metaphysics remains in its overall orientation paradoxical and evanescent, adjectival and verbiferous, meta-methodological and presuppositionist. This is important because even Dewey's indulgence in the metaphysical *a priori* does not trap him in prejudicial opinion about the nature or essence of the world. Dewey remarks of the *a priori* that "Prejudice is the acme of the *a priori*. Of the *a priori* in this sense we may say what is always to be said of habits and institutions: They are good servants, but harsh and futile masters."[22]

On Dewey's view, the *a priori* functions as a useful guide in the construction of educational theory without at the same time forcing educational theory into any format priding itself on immunity to development via inquiry. In this way, educational theory has access to knowledge *a priori* as a useful servant, able to discern acceptable ideas from unacceptable ones; but it in no way functions as a harsh master over development of educational thought. Dewey felt the need for and understood the advantages of such an ontology near the beginning of his career. "Science freed from its fear of an external and dogmatic metaphysic," Dewey optimistically and imaginatively speculated in the early 1890s, "will lose its fear of metaphysic. Having unquestioned and free possession of its own domain, that of knowledge and of fact, it will also

be free to build up the intrinsic metaphysic of this domain. It will be free to ask after that structure of meanings making up the skeleton of the world of knowledge."[23] Thus, with his *a priori* refutation of traditional and progressive education in *Experience and Education*, Dewey simultaneously frees educational theory to pursue, unafraid, scientific understanding of pedagogy.

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1 John Dewey, *The Quest for Certainty: A Study of the Relation of Knowledge and Action* in *John Dewey, The Later Works, 1925-1953*, Volume 4 (1929), ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1984), 35.
2 John Dewey, *Experience and Education*, in *John Dewey, The Later Works, 1925-1953*, Volume 13 (1938-1939), ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1988), 6-7.
3 Dewey, *Experience and Education*, 4. Capitalization of "E" in "Education itself" is important in light of Dewey's complaint that "One might discourse upon the deep meaning of the Capitalization of Nouns in the written form of the German language, together with the richness of the language in abstract nouns. One might fancy that the dignity of the common noun substantive, expressing as it does the universal or the generic, has bred an intellectual deference. One may fancy a whole nation of readers reverently bowing their heads at each successively capitalized word. In such a fashion one might arrive at a picture, not without its truth, of what it means to be devoted to *a priori* rational principles." See *German Philosophy and Politics* in *John Dewey, The Middle Works 1899-1924*, Volume 8 (1915), ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1979), 158.
4 Both quotes from Dewey, *Experience and Education*, 62. Emphasis in original.
5 Ibid., 11.
6 Raymond D. Boisvert, *Dewey's Metaphysics* (New York: Fordham University Press, 1988), 32.
7 The quotes come, respectively, from Richard J. Bernstein, *John Dewey* (New York: Washington Square Press, 1966), 21, and Steven C. Rockefeller, *John Dewey: Religious Faith and Democratic Humanism* (New York: Columbia University Press, 1991), 123.
8 John Dewey, *Logic: The Theory of Inquiry* in *John Dewey, The Later Works, 1925-1953*, Volume 12 (1938), ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1986), 259.
9 Dewey, *Experience and Education*, 26.
10 Sandra B. Rosenthal, "The Pragmatic A Priori: Lewis and Dewey," *The Southern Journal of Philosophy* 25, no. 1 (1987): 109-121, finds for both Dewey and C. I. Lewis that concepts are on the order of the mathematical idea of a number series. Of Lewis she notes that just like concepts "Such a mathematical rule cannot be reduced to the number series, nor can it be constructed out of the series, for it is necessary to the formation of the series. It is the rule for the generation of the number series with its capacity for indefinite expansion." (116, with reference to Lewis' *An Analysis*

*of Knowledge and Valuation* (La Salle, IL: Open Court, 1962/1946), 110). And Rosenthal (117-118) remarks of Dewey, "in a way similar to Lewis, Dewey understands the purposive activity constitutive of the concept in terms of a disposition or habit generative of schematic rules for the structuring of experience. Dewey holds that the concept is a mode or form of construction. The concept, as a *mode* of construction, or a "*method* of action" is dispositional in nature and general not particular, while any given instance, actual or as a mental existence, is particular. Just as a disposition cannot be reduced to any indefinite series of actions, or as a mathematical rule cannot be reduced to the generation of any indefinite series of numbers, so the concept "has an ideality which cannot be reduced to sense contents" nor to the particular activities, though it "is grasped only in and through the activity" to which it gives rise." (Quotes from Dewey included in this quote from Rosenthal come, respectively, from *Experience and Nature* (New York: Dover Publishers, Inc., 1958), 187 and "How Do Concepts Arise from Percepts?," in *The Early Works*, Volume 3 (1889-1892), ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1969), 144.)

11 A development in educational theory available for consideration and critique in Greg Seals, *Teachable Moments and the Science of Education* (New York: Routledge, 2019).

12 Dewey, *Logic*, 50-51. Emphases in original.

13 John Dewey, "In Reply to Some Criticisms," in *The Later Works, 1925-1953*, Volume 5 (1929-1930), ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1984), 215. Emphases in original. See also William Ernest Hocking, "Action and Certainty," 461-476 in Volume 5 of *The Later Works*, 225-238.

14 Dewey, *Experience and Education*, 24.

15 Ibid., 1.

16 John Dewey, *Art as Experience*, in *John Dewey: The Later Works, 19251953*, Volume 10, 1934, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1981), 22-23.

17 Dewey, *Experience and Education*, 28.

18 *Logic*, 108. Dewey's emphasis.

19 Ibid., 260 and 387.

20 See Reinhardt Grossmann, *The Categorical Structure of the World* (Bloomington: Indiana University Press, 1983), 3-18.

21 "The Subject Matter of Metaphysical Inquiry," in *John Dewey: The Middle Works, 1899-1924*, Volume 8 (1915), ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1979). The quote may be found on page 4. The final sentence of the paragraph paraphrases pages 6-7 and 11.

22 John Dewey, "Experience and Objective Idealism," in *John Dewey, The Middle Works 1899-1924* Volume 3 (1903-1906), ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press), 136.

23 John Dewey, "The Present Position of Logical Theory," in *John Dewey, The Early Works* Volume 3 (1889-1892), ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1977), 141.