Journal of Philosophy & History of Education
vol. 67, no. 1, 2017, pp. 53–64

The End of Thinking in Education: The Concept of Thought in Dewey and Arendt

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> *Everything the teacher does, as well as the manner in which he does it, invites the child to respond in some way or other and each response tends to set the child's attitude in some way or other.*
>
> —*John Dewey*[1]

Introduction

Today there are many potential harmful threats to contemporary public education: from short-sighted accountability schemes, which privilege one-size-fits-all quantitative evaluation of districts', schools', and teachers' effectiveness; to the high-stakes assessments which underpin such accountability systems—value for instruction notwithstanding; to myopic teach-to-the-test instruction and curricula which leads to rote learning at the expense of building deep knowledge. The work of John Dewey can and has been a beacon employed to rebuff these harmful, short-sighted aspects of contemporary education, and serves as a proven guide to child-centered education. In this essay I suggest, however, that within certain aspects of Dewey's thought lie the seeds of practices that neglect children's full potential. As Dewey is rightfully held up as a standard for a better educational way, it is important to look for supports to strengthen his educational philosophy, so children may fully flourish.

As an antidote, I argue herein that the conception of cognitive life offered by Hannah Arendt is an idea well-placed to complement and supplement John Dewey's theory on thinking. In this essay I explore Dewey's conception of thinking, revealing his construction of thought ultimately concords with the ways of experimental science. To be clear, I do not mean Dewey believed every thought should yield immediate practical effect; he duly recognized there is more to human thinking than practical problem-solving, lauding "thinking for the free play of thought" and "delight in thinking for the sake of thinking."[2] Nevertheless, I argue that for Dewey thinking centers around a piecewise building up of elements, where knowledge aided by thinking, step-by-step, becomes further knowledge. This notion ties into his

understanding of experimental science, which, little-by-little, adds together provisional bits of knowledge, resulting in a robust body of knowledge which can then be employed to gain deeper insight. In fact, production, in the etymological sense of "pro-duce" meaning "leading toward" (one bit of knowledge leading toward another), is very much embedded in Dewey's theories on thinking and knowledge.

Hannah Arendt acknowledges similar qualities of human thought, or how humans "know" things; for her, a key characteristic is that provisional truths can be explained and reasoned, becoming useable knowledge. She maintains, though, that the systematic and productive aspect of human cognition is only part of the story. Humans enjoy the additional cognitive capacity to "make meaning." When humans employ this ability they are removed from the world, removed from a this-leads-to-that practice of production. This meaning-making ability "leaves nothing behind"[3] and, as is liable to change by the very whimsy of thought, is not a stable springboard from which to build new insights. As argued previously, Dewey's meaning-making aspect does not then fit with Arendt's notion of thinking. As making meaning of and coming to grips with events and life in general are emblematic of the human condition—though they may not "do" anything—I suggest Arendt's notion of thinking also needs to be nurtured and supported in U.S. public education. Thus, this theoretical insight of Arendt's can become a supplement to Deweyan pedagogy.

Herein, I argue the conception of cognitive life offered by Hannah Arendt is an idea well-placed to complement and supplement John Dewey's theory on thinking. By way of evidencing my argument, I first explore Dewey's concept of thinking. Next I highlight how Arendt's thought converges with and diverges from Dewey's, illustrating the importance of considering their ideas in tandem. Finally, I offer implications for contemporary educational theory and practice based on the juxtaposition of their conceptions of thinking.

Philosophical Linkages

I preface my exploration of Dewey's concept of thinking by considering how his theory fits within the constellation of his broader terminology. For Dewey, thinking is very much related to experience and knowledge, for "experience involves the connection of doing or trying with something undergone in consequence."[4] An experience is made up of the combination of an active trying and a passive undergoing. It is not primarily cognitive; the cognitive or intellectual part of an experience occurs when one makes the connection between cause and effect.[5] This cognitive learning then becomes knowledge that can be used to navigate a coming situation. "Knowledge emerges from the perception of those connections of an object which determine applicability in a given

situation,"[6] or, in other words, knowledge comes from something and then can be used toward something.[7] Thinking is the faculty that probes knowledge and then puts it to use in a new situation, which solidifies knowledge. For Dewey, thinking is in some senses the glue that connects bits of insight, experience, and situations, becoming new knowledge.

I turn now to explore the development and relationship of practical and theoretical thinking, and lay out the continuums between practical and intellectual, and between concrete and abstract. Dewey eschewed binaries, which is critical to keep in mind as you consider my argument. Rather than considering the practical and intellectual as opposing one another, Dewey opined that bits of knowledge piggyback on one another; through the process of establishing these connections practical knowledge can become intellectual knowledge. Nevertheless, Dewey's outlook is based on the view of human cognition as fundamentally oriented toward "resolving perplexities:" thinking is activated by an impasse and works toward its resolution. Although thinking for Dewey can go beyond immediate practical circumstances, I argue nevertheless that his concept of thinking goes no further than the practices and theory of experimental science, in which one bit of knowledge leads to another bit of knowledge.

Dewey's *How We Think*[8] was written as a guide for initiating teachers in the pedagogic implications of his philosophy. The focus of his text is on reflective thought, which Dewey defines as the "active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusions to which it tends."[9] Thinking thus intermediates between bits of knowledge, and functions as the cognitive aspect that takes one piece of knowledge, builds upon it, and thereby transforms it into another piece of knowledge. There are two parts to the process of thinking: first, one must use thinking critically to probe supposed knowledge in order to verify its provisional correctness. After such verification, by use of thinking knowledge is then put to use. In a sense, one's mind takes the piece of knowledge and applies it to some experience of the world. Both stages of thought are thereby grounded in the practical world: to verify, one must expose the hypothesis to observable facts in the world; to apply, likewise, means to interface knowledge to the world.

The developing toddler is presented with "problems," for instance, manipulating blocks so that they form a free-standing tower which call on her nascent cognitive functions. Similarly, the school-based education is a place where the student encounters problems that authentically

stimulate his thought in attempts to solve those problems. Stimulating problem-solving requires the teacher set up and control the environment so students encounter developmentally appropriate problems. Done properly, the problems inherently motivate students and the teacher can rely on this "carrot" in lieu of a "stick." As Dewey notes, "demand for the solution of a perplexity is the steadying and guiding factor in the entire process of reflection.[10] … The problem fixes the end of thought and the end controls the process of thinking."[11]

This very practical grounding in problems is a part of the intellectual realm and, as Dewey suggests, "curiosity…becomes intellectual in the degree in which it is transformed into interest in *problems* provoked by the observation of things and the accumulation of material."[12] Would-be problems are not provoked solely by the teacher, but come about from the active curiosity of the child. This idea of "intellectual," a shift from mere curiosity to an interest in problems, is founded upon the student taking ownership of the issue, by being spurred to considerations above and beyond the strict problem. The intellectual realm can vary depending on the individual; what makes it intellectual is its "power to start and direct significant inquiry and reflection."[13] Far from being opposed dualities, there is a clear connection between practical and intellectual. Thinking and resolving a question posed by the teacher produces knowledge, which through further experience and thinking leads to more knowledge; the development of her thinking faculty then gradually begins to spur the child, using the knowledge gained to inquire about and attempt to resolve self-generated problems. There is a linkage in this process in which early stages of knowledge gained from practical problem-solving open the child to intellectual considerations of problems.

Such a unifying sensibility extends to Dewey's discussion of the concrete and abstract, which is "purely relative to the intellectual progress of an individual."[14] The concrete is "fixed mainly by the demands of practical life;"[15] this does not mean the concrete needs to be in the everyday sensate world. For adults, the concrete could include potentially intangible concepts like "taxes" or "the law," elements the typical adult encounters in the world. The abstract, conversely, is "the *theoretical*, or that not intimately associated with practical concerns."[16]

Humans' natural bias, Dewey theorizes, is toward the practical, since, "for the great majority of men [and women,]…their main business is the proper conduct of their affairs."[17] His language suggests such bias may not be a completely free decision because

> …the practical exigencies of life are almost, if not quite, coercive. … The adult when at work in his life calling is rarely

> free to devote time or energy—beyond the necessities of his immediate action—to the study of what he deals with.[18]

Indeed, Dewey's use of the term "coercive" indicates that adults are forced to deal almost exclusively with the "demands of practical life:" necessities such as ensuring one's family is fed, sheltered, and cared for.

The antidote to overemphasis on the practical is for individuals to take part in thinking simply for its own sake. "Interest in knowledge for the sake of knowledge, in thinking for the sake of the free play of thought, is necessary then to the *emancipation* of practical life."[19] This "free play of thought" is what releases individuals from the coercion of the world's necessities. Dewey goes so far as to hail this "the outcome, the *abstract* to which education is to proceed, is an interest in intellectual matters for their own sake, a delight in thinking for the sake of thinking."[20] He suggests free play of abstract thought can naturally follow from thought grounded in the practical. Progressive movement from thinking in the practical, to thinking in the abstract, to the thinking for the sake of thought, is an "old story," "at first incidental to results and adjustments beyond themselves, they attract more and more attention to themselves till they become ends, not means."[21] But how does such thinking come about? Is it natural, or does abstract thought need proper space and conscious pedagogical guidance in order to occur?

Dewey theorizes that this path requires proper guidance from educators. "The educative activities of childhood should be so arranged that direct interest in the activity and its outcome create a demand for attention to matters that have a more and more *indirect and remote* connection with the original activity."[22] Dewey follows by offering an example of an individual's interest in carpentry that becomes "organically" an interest in geometric and mechanical problems.

Dewey argues the need for both abstract and practical thought, since "abstract thinking, it should be noted, represents *an* end, not *the* end."[23] At bottom, the goal is for one to be proficient in both practical and theoretical realms. Dewey sees what, at first glance, appear to be bipolar, opposing terms as instead occurring along a continuum—pairs of terms like practical and theoretical, abstract and concrete. These continuums may aim toward resolving a perplexity. In the example of how carpentry "organically" becomes an interest in geometric and mechanical problems, both "abstract" ends (geometry and mechanics) relate to problem solving. This distinction flows into his delineation of the process of thought, which Dewey divides into five steps:

> (*i*) a felt difficulty; (*ii*) its location and definition; (*iii*) suggestion of possible solution; (*iv*) development by reasoning of the bearings of the suggestion; (*v*) further observation and

> experiment leading to its acceptance or rejection; that is, the conclusion of belief or disbelief.[24]

The process of thought for Dewey mirrors the characteristics of experimental science in three ways; indeed, Alan Ryan argues, "Dewey's entire theory of thought is implicit in this little statement."[25] The first way is that the purpose of both experimental science and thinking is to resolve a perplexity. Second, both also profess the open-endedness of knowledge: a piece of knowledge is built upon other pieces of knowledge which then is used to develop new knowledge. The quality of open-endedness suggests a progressively increasing chain of elements in which thinking is productive ("pro-duce" meaning "leading toward"), which is another way of saying thinking is instrumental. Dewey himself preferred to be called an instrumentalist (and not a pragmatist) though influenced by the founder of American pragmatism, Charles Sanders Peirce.[26]

The third way Dewey's idea of thinking concords with experimental science lies within the idea that knowledge is provisional, and subject to being disproved by further experience. Though pragmatist was not the term by which Dewey preferred to describe himself, there exists much overlap between his thought and the tenets of pragmatism. His embrace of experimental science as the epitome of knowledge aligns closely with the philosophical tenets of pragmatism. Part of the equipment of this school of thought is the pragmatic criteria of meaning (related as it is to the verifiability principle of meaning, fundamental both to logical positivism and pragmatism): in short, something is considered knowledge only if it is verifiable empirically.[27] Stemming from this, as Dewey ascribes, is the fallibilistic quality of pragmatism, in which any claim accepted as knowledge holds this status provisionally (to the extent that it can adequately yield a coherent understanding of the world), and is open to be falsified by further empirical discovery.[28]

Dewey touches upon the transformational potential of thinking; he lauds knowledge for the sake of knowledge, theorizing knowledge can "emancipate" people from the "coercion" of everyday necessities; he opines, in contrast to other educational theorists of his day such as Thorndike,[29] that rational problem-solving can be used by everyone. Yet, Dewey's concept of humans' mental life is bracketed by the ways of experimental science. For Dewey, the purpose of thought is to resolve perplexity, while knowledge "aims to adapt our aims to the situation in which we live."[30] Even if experimental science can be relatively distinct from immediate needs and wants,[31] Dewey's frame is wholly purposeful from the standpoint of one answering a question or resolving a perplexity. Both his purpose and notion of the instrumental quality of thinking contrast in part with Hannah Arendt's thought.

Dual Realms of Thought: Hannah Arendt

Arendt explored the workings of humans' mental life in works written near the end of her life.[32] In *The Life of the Mind* she contrasts two spheres of mental life, which she terms "knowing" and "thinking." It is important to distinguish that Arendt's "knowing" realm encapsulates most if not all of what Dewey considered to be "thinking," yet her "thinking" realm encompasses more than what Dewey considers "thinking" to be. For Arendt, knowing very much concerns and is grounded in what can be known; these are things which can be sensed or at least involve the sensate world. Arendt follows Dewey in this regard: the world of the senses stimulates humans' intellect to figure things out (e.g. why do objects fall to earth?). It is this desire to know that birthed modern science, with its indefatigable search for the explanation of phenomena, both those visible and invisible to the eye. As she theorizes it, the objective of knowledge is truth, and the knower comes to a conclusion based on sensory evidence. It is not that truth is absolute and final, rather it is "exposed to error in the same way as sense perceptions and experiences."[33] Arendt writes the concept of truth is "derived from the common-sense experience of irrefutable evidence, which dispels error and illusion."[34] In other words, truth may be provisional, but the knower will continue to employ this truth until evidence suggests otherwise. Arendt's view is thus very much aligned with Dewey's ideas about the provisionality of truth and purpose of knowledge.

A truth can be reasoned to others, if need be, by defending that truth with empirical evidence; this practice speaks to the common sense-ness and world-centeredness of the activity, for "the activity of knowing is no less related to our sense of reality and no less a world-building activity than the building of houses."[35] Arendt's comparison between knowing and production, in the sense of building construction, is apt: the technological revolution, after all, is grounded upon the effective truths of science; and science-driven technology has produced and inspired so much of the modern, lived world. The world of the senses, infused as it is with the wonders of science and technology, therefore gives a clearly effective perspective great credibility. Such a bias toward knowing and practicality is particularly enhanced if, following Dewey, a child's education is shaped by the locus of problems and perplexities, elements to which one can work toward a solution; as such, this knowledge-seeking outlook, nurtured during childhood, will come to dominate adulthood, too.

Arendt maintains considering only "perplexity resolving" elements as part of humans' mental life results in neglecting a critical attribute of the human mind: to "make meaning," an attribute additional to

problem-solving and making things. She calls such meaning-making "thinking." Rather than being grounded in the practical, sensory world, for Arendt thinking removes one from the sensate world. As humans become "lost in our thoughts," they become free to make meaning. Her idea contrasts with humans' knowing function, which is firmly grounded in the world, in the here-and-now, the practical, and in questions which have effective answers. Thinking does not ask "what something is or whether it exists at all but what it means for it to be."[36] Thinking does not come about from the step-by-step linking of bits of knowledge, rather the meaning to which Arendt points can emerge in a flash of insight, and disappear just as quickly the next day. While Dewey suggests control is pivotal to humans' processes of thinking and knowing ("[t]he problem fixes the end of thought and the end controls the process of thinking"[37]), for Arendt the meaning-making capacity of thinking is unstable, liable to change, and cannot be controlled.

For Arendt, the thinking urge is stimulated by humans' active reason, which, in the midst of the world, prods one with questions like, "why do we exist?" or "what is life about?" Though such questions can be put into language and discussed with others, they cannot be evidenced or conclusively proved; these types of questions are therefore not located in knowing's realm of truth. Importantly, from a practical perspective, thinking, as something that neither produces anything nor leads to action, is meaningless. "The thinking activity leaves nothing behind,"[38] for without a tangible truth or practical product, the thinking faculty appears paltry next to the bounty of the knowing faculty. In addition to thinking being meaningless, there is no purpose behind it, either. We simply engage in it because it is who we are—much as we try to control it, with admonitions to "quit daydreaming" or "do something practical," our minds cannot help but be captured by idle thoughts. The realm of knowing thus, paradoxically, finds meaning's realm to be meaningless. Such a perspective on thinking as Arendt's contrasts markedly with Dewey's idea of thinking characterized by successively linked bits of knowledge and grounded in resolving perplexities.

The differences between Arendt and Dewey may stem in part from what each views to be the purpose of thought. For Dewey, experience is primarily non-cognitive: life is something that humans suffer, bear, and enjoy. The need for cognition only emerges when "the unity of this felt immediacy is disturbed."[39] Under this perspective, thinking comes to fill a need, acts to solve a discrepancy, and harmonizes the situation. For Arendt, thinking is fundamental to human life; it has a practical aspect (her "knowing" realm), but to view it only on practical terms shortchanges humans' meaning-making capacity, which may not "leave anything behind," but is just as characteristic of human thought.

That said, Arendt reveals such a neat distinction between knowing and thinking is an oversimplification. She does not see knowing and thinking as binary forces, rather as inherently related.

> By drawing a distinction between knowing and thinking, I do not wish to deny that thinking's quest for meaning and knowledge's quest for truth are connected…. Behind all the cognitive questions for which men find answers, there lurk the unanswerable ones that seem entirely idle and have always been denounced as such.[40]

Kant, the originator of the distinction between reason (*Vernuft*) and intellect (*Verstand*), blurs the relationship between thinking and knowing. He "constantly compared the two with each other;" and Arendt maintains Kant has beguiled philosophers whose *modus operandi* deal with thinking, and who "have always been tempted to accept the criterion of truth as applicable to their own business as well."[41] Arendt, who introduces her discussion on knowing by placing it under the umbrella of thinking,[42] herself blurs the two; thinking, when used for the purpose of knowledge, is used as a means toward something (i.e., knowledge or provisional truth), whereas in the activity of sheer thinking there is no end, rather thinking is simply an activity which allows humans to uncover meaning. In our present age, during which people seem most hesitant to declare any inherent purpose to education other than that allowing individuals to get better jobs and the national economy therefore to become stronger, humans have thus been much more apt to envision education as a means to an end. Pedagogues may take heart, though, for if the drives for practical truth and impractical meaning are indeed closely related, pearls of meaning will emerge from underneath the coral of empirical findings.

Moving Past an Objective

For a variety of reasons, it seems the major ambitions of public schooling are to make every minute as effective as possible (recess be damned!) and every process as efficient as possible (hello, management science). The capacity to see thinking as a primary educational ambition is especially fraught under the contemporary neoliberal measurement and accountability agenda, which falls perfectly in line with the neoliberal empirical focus: one cannot control what cannot be measured. The upshot of the neoliberal agenda's infiltration into public education is that "purpose" and "objective" have now bled into all educational activities. Some of these contemporary education fads align, in at least some sense, with Deweyan calls for knowledge built on a process analogous to experimental science, which is always looking for a problem to resolve or how further to expand the boundaries of

knowledge. The neoliberal focus aligns as well with part (the knowing realm) of what Arendt considers to be humans' mental life. However, the other part of our mental life, which may create meaning but does not leave a measureable trace, is rendered, dare I say, invalid in today's schools.

I began my argument by recounting Dewey's insight on the impact of the classroom environment (as stimulated by the teacher's actions and manner) on a child's frame of mind. As such, the problem-solving and evidenced-based bent of contemporary education tends to become imprinted on children's minds, shaping the way they see the world. Problem- seeking and solving becomes the child's frame of reference, for meaning-making tends to be shortchanged in a neoliberal society where education is dictated more and more by accountability and measurement and continues to be transformed by technological progress. If what occurs in the classroom is dictated by evidence, there will be no time for honing pupils' skills at meaning-making, which can be neither measured nor proved. The question remains, however, why should we not focus exclusively on the practical, on developing students' abilities around knowing things that can be known? For Arendt, this is a question that cannot be answered incontrovertibly, as it lies outside the knowing realm (which is the realm that can have provisionally correct answers). Aside from this rather glib response, an alternative line of thought holds that the thinking realm (which humans use to make meaning) is, simply, human—as distinct from both animals and computers—and needs acknowledgment and support. Another possibility falls more in Dewey's terms. For Dewey education is a social business, and the public has an interest in education as it remains perhaps the primary path used to influence society. There are many ways to influence society, for instance developing new practical technologies that can more efficiently use society's resources. Such influence is important, but the capacity to ask and consider the unanswerable questions "upon which civilization is founded"[43] is also important. Possible responses to these and other rhetorical questions are more apt to come from the "free play of thinking," unconcerned with tangible benefit, and removed from the noise and necessity of the world. If, as Dewey writes in *Democracy and Education*, communication makes up the heart of social life, and all communication is education, the highest form of communication is that which speaks to beliefs and values, those things that bind us most; this type of education is one that needs nurturing, away from the harsh glare of measurement, production, and demands for truth.

Endnotes

[1] John Dewey, *Democracy and Education* (New York: The Free Press, 1944), 231.

[2] John Dewey, *How We Think* (Lexington, MA: D. C. Heath and Company, 1910), 141.

[3] Hannah Arendt, *The Life of the Mind: Volume 1, Thinking* (New York: Harcourt Brace Jovanovich, 1978), 62.

[4] Dewey, *Democracy and Education*, 151.

[5] Ibid., 139–140.

[6] Ibid., 340.

[7] Ibid., 188–191.

[8] Alan Ryan, *Liberal Anxieties and Liberal Education* (New York: Hill & Wang), 126–127.

[9] Dewey, *How We Think*, 6.

[10] Ibid., 11.

[11] Ibid., 12.

[12] Ibid., 34, emphasis in original.

[13] Ibid., 39.

[14] Ibid., 137.

[15] Ibid.

[16] Ibid., emphasis in original.

[17] Ibid., 138.

[18] Ibid., 141.

[19] Ibid., 139, emphasis in original.

[20] Ibid., 141, emphasis in original.

[21] Ibid.

[22] Ibid., emphasis in original.

[23] Ibid., 142, emphasis in original.

[24] Ibid., 72.

[25] Ryan, *Liberal Anxieties*, 128.

[26] D. C. Phillips, "After the Wake: Postpositivistic Educational Thought," *Educational Researcher* 12, no. 5 (May 1983): 4–12. In Dewey's describing himself as an instrumentalist, he adheres to the common understanding of instrumental, in the sense of having to do

with means and ends; in addition to this, for him instrumentalism speaks to the kind of structure that science tries to describe. Science is thus the "study of instrumental properties of things without regard for immediate practical uses" [Peter Godfrey-Smith, "Dewey on Naturalism, Realism and Science," *Philosophy of Science* 69, no. S3 (Sept. 2002): S25–S35].

[27] Phillips, "After the Wake."

[28] Shulamit Gribov, "John Dewey's Pragmatism and Moral Education," *Philosophy of Education* 2001, (2001): 373–380.

[29] Stephen Tomlinson, "Edward Lee Thorndike and John Dewey on the Science of Education," *Oxford Review of Education* 23, no. 3 (Sept. 1997): 365–383.

[30] Dewey, *Democracy and Education*, 344.

[31] Matthew J. Brown, "John Dewey's Logic of Science," *HOPOS: The Journal of the International Society for the History of Philosophy of Science* 2, no. 2 (Fall 2012): 258–306; and Godfrey-Smith, "Dewey on Naturalism, Realism and Science."

[32] As the focus of this essay is on humans' cognitive capability, *The Life of the Mind* is much more relevant than Arendt's essay "The Crisis in Education" where, without naming Dewey, she is critical of some aspects of child-centered pedagogy commonly associated with Dewey. "The Crisis in Education" is founded upon a phenomenological take on the private, family world and public, social world that a developing human needs to navigate, and in this work she does not investigate cognition.

[33] Arendt, *The Life of the Mind*, 58.

[34] Ibid.

[35] Ibid., 57.

[36] Ibid.

[37] Dewey, *How We Think*, 12.

[38] Arendt, *The Life of the Mind*, 62.

[39] Tomlinson, "Edward Lee Thorndike and John Dewey."

[40] Arendt, *The Life of the Mind*, 62.

[41] Ibid.

[42] Ibid., 54.

[43] Ibid., 62.