

What would John Dewey say about today's Critical Thinking, Critical Theory, and Moral Reasoning?

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In this chapter I propose to examine Dewey's own words to show how 'critical thinking skills' focus today is a misinterpretation of his ideas for over a century. For example, King and Kitchener (1994: 93), following Basseches (1989: 55), argue that the formal operations of critical thinking are suitable to "closed-system" problems" where as problems that are more complex with uncertain solutions are amenable to dialectical 'open-system' thinking because of interactive and transformative relationships.

Key Words: *Critical thinking, critical theory, critical pedagogy, John Dewey*

What would John Dewey say? Dewey would likely say 'critical thinking skills' is a "misguided 'quest for certainty'" in an era when uncertain and ill-structured problems and what is needed is "cultivating critical students and citizens" (Anderson, 2015: 84). Keep in mind, Dewey was not against skills, it is just that situating them in memorizing for rote recitation is not the kind of reflective thinking process experience he considered most important.

"The essence of critical thinking is suspended judgment; and the essence of this suspense is inquiry to determine the nature of the problem before proceeding to attempts at its solution. This, more than any other thing, transforms mere inference into tested inference, suggested conclusions into proof" (Dewey, 1910: 74).

As Dewey conceives 'critical thinking' it is centered on induction and deduction in an experience as method approach:

"While induction moves from fragmentary details (or particulars) to a connected view of a situation (universal), deduction begins with the latter and works back again to particulars, connecting them and binding them together. The inductive movement is toward *discovery* of a binding principle; the deductive toward

its *testing*—confirming, refuting, modifying it on the basis of its capacity to interpret isolated details into a unified experience. So far as we conduct each of these processes in the light of the other, we get valid discovery or verified critical thinking” (Dewey, 1910: 82).

In his later writing, Dewey (1927) made an ontological turn after reading Heisenberg’s (1925) quantum principles of indeterminacy. Dewey (1927) saw *the quest for certainty* as rooted in Newtonian and Cartesian model of science, at a time when Heisenberg’s principle of indeterminacy from quantum mechanics was bringing attention to problem solving under conditions of ill-structured problems and conditions of uncertainty. Dewey was moving away from epistemological skills into ontology of Being and existential context that anticipated Heidegger, Merleau-Ponty, and Wittgenstein’s ontological concerns.

What is ‘critical thinking’ today? In brief, critical thinking is a movement with many twists and turns, and many debates (most recently, McPeck, 2017; Paul, 2017). McPeck (2017: x) wants to teach critical thinking as what Paul (2017) calls, ‘marginally scientific’ conceptual reasoning skill. Paul (2017) argues for a more situated social and personal approach to critical thinking, which he finds too atomistic (single categorical) argumentation (Paul, 1984). The controversy continues to rage between Paul and McPeck and it divides the critical thinking pedagogy community. Many critics of Ennis (1962) says his twelve kinds of judging of statements skills approach to critical thinking is flawed (McPeck, 1981; Cornbleth, 1985; Siegel & Carey, 1989) because thinking is more complex than judging statements, cognition logic training, and the attempt to be context free coding against Dewey’s purpose of experiential learning by social reflection and a courage for social action.

Dewey is said by many critical thinking authors to be about practical inquiry, with a pragmatic focus in the education experience (Garrison & Archer, 2000). And, in many critical thinking articles, there is an attempt to utilize the scientific method, in relation to education assessment of individual or group’s on going process of problem-solving and critical reasoning outcomes. Still something is missing in the contemporary wor, the active experience of confirming, refuting, and modifying

theory by discovery and experimentation in the reflexive praxis of scientific method.

Further, in today's socioeconomy, Dewey's approach to critical thinking as an essential path of business to creative innovation and invention is: "necessary to maintain a competitive position in the international market" (Brandy, 2004: 5). Brandy's (2005: 6) solution is for Deweyan industrial intelligence to unify vocational and academic education: "Dewey's description of industrial intelligence (1917) suggested that academic and vocational education should not be separated, and that one learns most effectively through engagement of the hands, mind, and heart together."

There are so many different 'critical thinking' as well as critical theory treatises today, all purporting to build on Deweyan notions of experiential-based method of inquiry, reflexivity and democratic action. And if there is such multiplicity, can they all be Deweyan? Knopf and Bond (1995) question how Deweyan reflective thinking and has become a *Tower of Babel* discourse as varied as Schön's (1983,1987) reflexive practice, disputations among 'critical thinking' theorists (Blinker, 1992; Ennis 1962; Johnson, 1992; Lipman, 1988; McPeck, 1981; Paul, 1982, 1984, 1989; Reinhart, 1994; Siegel, 1988), 'critical pedagogues' (Freire, 1970/2000...xxcvfvdfdf) to Kohlberg

Some 'critical thinking' theorists purport to directly follow Dewey's (1910/1933) *How we Think* philosophy (Shermis, 1992). Others purport to overcome their incompleteness and vagueness (Ennis, 1962), to put thing in some other framework such as a semiotic language thinking perspective rooted in Charles Sanders Peirce pragmatism (Siegel & Carey, 1989), or to fit them to demands of outcomes assessment that are grade-specific (King & Kitchener, 1994) such as the *Cornell Critical Thinking Test* (1961, 1971).

Morgan (2015), for example, presents the case against 'critical thinking skills' in a time when it is commonsensical to assuming such skills are indispensable part of *Common Core State Standards*, integral to problem solving and to science itself. Ironically the CCSS do not bother to define critical thinking, or what a skill is

(Anderson, 2015: 83).¹

My own read is that Dewey (1910/1933: 74) recognized the limits of cognitive-based logical and skills analysis of critical thinking:

“[Logical] forms apply not to *reaching* conclusions, not to *arriving* at beliefs and knowledge, but to the most effective way in which to set forth what has already been concluded so as to convince others... of the soundness of the result [emphasis added] (as cited in Siegel and Carey, 1989: 13).

“According to Dewey, thinking is not listening, it is not memorizing, it is not reciting. Thinking is not formal logic. Although all of these skills are phases of the thinking process, they are not reflective thinking. Thinking is' a process through which meanings are developed, clarified, and tested by first hand experience in problem solving. For all practical purposes,. Dewey-considered reflective thinking- and- problem solving one and the same” (Berry, 1963: 359).

The stakes are high. A third of a billion dollars was allocated by the Secretary of Education to assess and measure critical thinking (& writing) and to promote critical thinking and problem solving skills. Many states in the US are moving to grade-specific standards to assess critical thinking. This has accelerated demand for developmental models of critical thinking skill testings. Anderson (2015: 88) points out that: “Critical thinking; itself never appears in any of the standards, leaving us to assume that by attempting to demonstrate an ability to ‘analyse,’ ‘synthesise,’ ‘determine,’ and ‘interpret’ —skills that seem indeterminate and impossibly difficult to measure—students will absorb sense of criticality of the world around them.” The unintended consequences is the grade-specific standards approach to critical thinking will result in reductionistic thinking, in which students learn to perform routinely in a dehumanized process that is antithetical to to criticality. Dewey would likely not agree with the approach because it is unscientific, reductionistic of complexity to simplicity, and dehumanizing.

Ennis (1962) reduces Dewey’s ‘critical thinking’ from scientific methods and ontological meaning to “*the correct assessing of statements*” (Ennis, 1962: 81, italics

¹ What Parents Should Know,” Common Core State Standards Initiative, accessed April 27, 2015, <http://www.corestandards.org/what-parents-should-know>.

original). Ennis says that Dewey's approach to Critical Thinking is not "comprehensive" and "unfortunately suggest[s] that the problem [of statements] is solved when the solver thinks it is solved, thus providing a psychological instead of a logical criterion of a problem" (IBID. 81). McPeck's 'critical thinking' is thought to be relativize, according to Paul (2016: p. 104) who identifies the bogey man in critical thinking in a variety of ways ('the logic approach,' 'formalism,' 'informal logic' 'naive logical positivism,' logic *simpliciter*', and so forth), but the bulk of his book is spent in attacking scholars associated with the Informal Logic Movement (Ennis, Johnson, Blair, D'Angelo, and Scriven)" (p. 106). What McPeck leaves out is the considerable history of critical thought in "work of Plato, Aristotle, Kant, Hegel, Marx, Freud, Weber, Sartre, Habermas, and so forth" (p. 106). He does not consider the field and discipline of Critical Theory or Critical Pedagogy. Ennis's (1962) article 'A Concept of Critical Thinking has undergoing modifications in his thinking that McPeck ignores. McPeck's charge is that Ennis is making critical thinking into a generalized skill (p. 56) rather than a specific discipline or domain of knowledge. Ennis reduced "critical thinking" to "the correct assessing of statements" (82-3) which can be classified into deontological judging value statements to characterize a critical thinking (p. 84):

1. Grasping the meaning of a statement
2. Judging whether there is ambiguity in a line of reasoning
3. Judging whether certain statements contradict each other.
4. Judging whether a conclusion follows necessarily.
5. Judging whether a statement is specific enough.
6. Judging whether a statement is actually the application of a certain principle.
7. Judging whether an observation statement is reliable
8. Judging whether an inductive conclusion is warranted.
9. Judging whether the problem has been identified.
10. Judging whether something is an assumption.
11. Judging whether a definition is adequate.
12. Judging whether a statement made by an alleged authority is acceptable.

Nothing could be further from Dewey's approach, which is to relate Critical Thinking to the pragmatic use of inductive and deductive logic in scientific method

of reflexive praxis that Dewey (1910) theorizes is a double movement inquiry into general *meaning*:

“There is thus a double movement in all reflection: a movement from the given partial and confused data to a suggested comprehensive (or inclusive) entire situation; and back from this suggested whole—which as suggested is a *meaning*, an idea—to the particular facts, so as to connect these with one another and with additional facts to which the suggestion has directed attention. Roughly speaking, the first of these movements is inductive; the second deductive. A complete act of thought involves both—it involves, that is, a fruitful interaction of observed (or recollected) particular considerations and of inclusive and far-reaching (general) meanings” (p. 80).

The reflexive praxis is the scientific reasoning of developing a *working hypothesis* to guide investigation, moving to “*inductive discovery*’ and testing conclusions by “*deductive proof*” (Dewey, 1910: 81). For Dewey (1910: 74) Critical Thinking is suspending judgment by entering the problem and using experimentation to collaborate theory:

“The essence of critical thinking is suspended judgment; and the essence of this suspense is inquiry to determine the nature of the problem before proceeding to attempts at its solution. This, more than any other thing, transforms mere inference into tested inference, suggested conclusions into proof” (p. 74).

What Ennis (1962) did in reducing scientific method to judging statements was to eliminate Dewey’s (1910: 77-78) focus on verification of theory hypotheses by experimental observation to falsify rationally deduced rival auxiliary hypotheses that don’t work out in the actual situation: “**The trained mind one that judges the extent of each step advisable in a given situation**” (bold in original). Ennis judging statements surrogate for Critical Thinking that is an experience and observation of the Situation. As Dewey (1910: 79) concludes: “No cast-iron rules can be laid down” because the training in Critical Thinking must be experiential in context of grasping by observation in experimentation and testing, not merely epistemic (ways of knowing) removed from the situation. “The inductive movement is toward *discovery* of a binding principle; the deductive toward its *testing*—confirming, refuting, modifying it on the basis of its capacity to interpret isolated

details into a unified experience... So far as we conduct each of these processes in the light of the other, we get valid discovery or verified critical thinking” (Dewey, 1910: 82).

Darling (2017: 2-3) call this a this a case using standardized assessment in a way that is “narrowing the curriculum to satisfy the demand of high accountability tests” resulting in reduction of Deweyan critical thinking to rote answers.

Brandy (2004) views Dewey (1915) as laying the groundwork for an education the produced students capable of critical thinking.

“Unless the mass of workers are to be blind cogs and pinions in the apparatus they employ, they must have some understanding of the physical and social facts behind and ahead of the material and appliances with which they are dealing . . . What is wanted is that pupils shall form the habit of connecting the limited information they acquire with the activities of life, and gain ability to connect a limited sphere of human activity with the scientific principles upon which its successful conduct depends” (Dewey, 1915: pp. 246-247).

Dewey’s (1915) situation was a time of moral, ethical, and industrial challenges that Brandy (2004: 2) says “continues to resonate among educators today.”

“The primary thesis inherent in much of Dewey's work is that children, through their play, emulate and experiment with activities in the social milieu, thereby developing practical skills, academic skills, and critical thinking skills which they then continue to apply to the society in which they live and work.” (Brandy, 2004: 4).

The point is that education has a broader purpose that specialized technocratic skills in critical thinking does not create a pedagogy generative of democratic citizens whose intelligence is based upon science rather than rote responses to standardized assessment tests.

What would Dewey say about Critical Theory?

Critical theory (Held, 1980; Gibson, 1986) builds on the work of the Frankfurt School scholars: Horkheimer, Adorno, Marcuse, Fromm, Arendt, and many others writing during and after WWII, and includes their relationship to Walter Benjamin, a storytelling theorist, who took a historical approach that Adorno and Horkheimer thought did not represent the historical materialism, dialectical method

of Marx. The role of Benjamin in Critical Theory is something debated to this day (Boje, 2008, *Critical Theory Ethics*).

Critical Theory (with capital C and T) refers to the early Frankfurt School participants. Little critical theory (no caps) is used to designate the critical theorists who have come after, and there are a multiplicity of protagonists working in diverse academic fields, of which I am one, along with Freire and Macedo (1987), McLaren (1988), Arnowitz and Giroux (1986) and many others. Little or lower-case 'critical theory' is associated with critical pedagogy work (Arnowitz & Giroux, 1986).

At the heart of critical theory is dialectical thinking. "In my view, the logics we use, and which we are daily constructing and reconstructing, are far more mutable, less discrete, more general, and more open and multi textured, more social, more dialectical, and even more personal—and sense far less susceptible to domain-specific skills and concepts—than McPeck dares to imagine" (Paul, 2016: p. 110): operations; these include an awareness of whole systems, the essential properties of this systems, and their changing nature; an awareness of internal relationships within a system; and an awareness of the fact that relationships are sometimes essential characteristics of objects or person (for example, being a member of a faculty is an essential characteristic of a person's identity).

Finally, dialectical thinking can reflect upon itself and demonstrates an awareness that qualitative changes can emerge from quantitative ones" (King & Kitchener, 1994: 93). What is ironic is that their approach to dialectical reasoning does not include any reference to Plato, Hegel, or Marx.

Here I treat critical pedagogy as continuing the critical theory project. There are many points of agreement between Deweyans and Critical Pedagogues, but some important differences. On the agreement side, Dewey's own theory of pragmatism emphasizes an experiential world of inquiry rather than skill transference from teacher to student. Critical theorist Paulo Freire (1970/2000) would likely agree, this is a version of the 'banking model' of education and an antidialogic pedagogy of the oppressed. Could it be that the hidden curriculum of critical thinking skills grade-specific standards is narrows the learning of criticality, problem solving, creativity, and scientific methods?

On the disagreement side, the dialectical thinking in critical pedagogy is particularly problematic for Dewey (1925) who was decidedly against Plato's, Kant's, and Hegel's dialectical thinking, and was no fan of moral reasoning.

Freire's (1970/2000, 1985) work on a Critical Pedagogy of dialogical education is frequently tied into critical thinking, for its pragmatic and practical, as well as its critical discourse and dialogism. "The 'dialogical man' is critical and knows that although it is within the power of humans to create and transform, in a concrete situation of alienation individuals may be impaired in the use of that power" (Freire, 1970/2000: 91). This tie-in to critical thinking brings out the power dynamics of a community of inquiry (or in other words, action research).

There are however, critiques of dialectics made by Freire that Dewey could agree to: "The leftist-turned-sectarian goes totally astray when he or she attempts to interpret reality and history dialectically, and falls into essentially fatalistic positions" (Freire, 1970/2000: 38). Dialectics is not enough to overthrow the hegemony of the oppressor: "Nor does the discovery by the oppressed that they exist in dialectical relationship to the oppressor, as his antithesis— that without them the oppressor could not exist⁴—in itself constitute liberation. The oppressed can overcome the contradiction in which they are caught only when this perception enlists them in the struggle to free themselves" (Freire, 1970/2000: 49).

Freire wants something deeper than the historical materialist dialectic to make authentic praxis possible (p. 51) by developing experiential and "critical awareness of oppression through the praxis of this struggle." There is something deeper beneath the dialectic that Freire's (1970/2000: 72) Critical pedagogy, aims to disclose in the education experience: "The students, alienated like the slave in the Hegelian dialectic, accept their ignorance as justifying the teachers existence—but, unlike the slave, they never discover that they educate the teacher." At some points, Freire (1970/2000: 105) seems to treat dialectical inquiry as part of the existential discovery process of Critical Pedagogy:

"This method does not involve reducing the concrete to the abstract (which would signify the negation of its dialectical nature), but rather maintaining both elements as opposites which interrelate dialectically in the act of reflection. This dialectical movement of thought is exemplified

perfectly in the analysis of a concrete existential, "'coded' situation. Its 'decoding' requires moving from the abstract to the concrete; this requires moving from the part to the whole and then returning to the parts; this in turn requires that the Subject recognize himself in the object (the coded concrete existential situation) and recognize the object as a situation in which he finds himself, together with other Subjects."

Another example of the interplay of dialectical history and dialogism is in how to witness one's own oppression:

"Since these dimensions of witness are historical, dialogical, and therefore dialectical, witness cannot simply import them from other contexts without previously analyzing its own. To do otherwise is to absolutize and mythologize the relative; alienation then becomes unavoidable. Witness, in the dialogical theory of action, is one of the principal expressions of the cultural and educational character of the revolution" (p. 176).

A return to Dewey's critical thinking that is experiential praxis fits well with Freire's (1970/2000: 91) dialogism praxis which is counter to the 'banking method' of an epistemologic or cognitive skill approach to critical thinking, which Freire calls anti-dialogic: "Conversely, such trust is obviously absent in the anti-dialogics of the banking method of education." A second connection between Dewey and Freire is their focus on education as problem based: "In contrast with the antidialogical and non-communicative 'deposits' of the banking method of education, the program content of the problem-posing method—dialogical par excellence—is constituted and organized by the students' view of the world, where their own generative themes are found. The content thus constantly expands and renews itself" (Freire, 1970/2000: 109).

"The object of dialogical-libertarian action is not to 'dislodge' the oppressed from a mythological reality in order to 'bind' them to another reality. On the contrary, the object of dialogical action is to make it possible for the oppressed, by perceiving their adhesion, to opt to transform an unjust reality" (Freire, 1970/2000: 174).

Morrison (1985) asserts that a feminist ethics of caring (Nodding, 1984) "in which intuition plays a power role" and "rules, formulas, and procedures lost their force" in favour of dialogue and consecutiveness that transcends masculine and

feminine morality (Morrison, 1984: 7). In sum, the teacher's every act as a caring person, carries moral overtones. Morrison (1985: 9) connects this to Merleau-Ponty (1962: viii) "style of thinking, that it insisted as a movement before arriving at complete awareness of itself as a philosophy." For Morrison, an ethic of care is a more embodied way of knowing and reflective acts of consciousness.

Jorgensen (2015: 130) believes the Deweyan foundation of democratic education processes with concern for social justice is in danger of becoming extinct in the No Child Left Behind of Common Core curriculum standardization.

Siegel and Carey (1989: 17), 23 connects Dewey's experiential reflection to Peirce's semiotic perfused world (e.g., sign-interpretant-object & the induction-deduction-abduction triadics). My critique is that while Peirce's pragmatic is kindred to Dewey's, they are not the same kinds of reflection. As Rorty (XXXX) contends Dewey is operating in-between the pragmatist-aesthetics of Charles Sanders Peirce and William James. Siegel and Carey (1989: 21) are correct in noting that Ennis' approach to epistemic statement assessment is different from both Dewey and Peirce's conception of critical thinking as reflexive pragmatic praxis. Both McPeck (1981) and Cornbleth (1985) argue Ennis's (1962) approach to 'critical thinking' does not include Deweyan skepticism situated in experience. It also reduces science of question-posing hypotheses generation to cognitive judgments of statements.

There is something that Peirce adds to Dewey critical reflective and experiential thinking. It is the 'abductive environment; how students can use anomalies as a starting point in hypothesis generation., which Siegel and Carey (1989: 33) see as an often missing dimension of critical thinking in classrooms. Dewey's (1934, 1938) pragmatic philosophy has a biological slant of humans as living creatures in reciprocity with nature (natural environment). "Dewey's naturalism re-emerges" in his 1938 Logic of inquiry book (Lockwood, 1992: 4).

"Experience occurs continuously, because the interaction of live creature and enviroing conditions is involved in the very process of living." (Dewey, 1934: 35) as cited p. 2 in Lockwood (1993).

Ross and Hannay (1986) argue that 'reflective inquiry' (& praxis) does not provide an inquiry model rooted in Dewey (1910/1933) experimentation and problem posing, and that both are different from dialectical reasoning (which Dewey explicitly criticized). For example, Paul (1984: 10) finds the critical thinking technical-skills approach to be reductionistic, failing to deal with dialectical issues inherent in social problems. In short, 'critical thinking' skill training is not the same as dialogical reasoning. "Technical knowledge is typically developed by restriction to one frame of reference, to one standpoint. Knowledge arrived at dialectically, in contrast, is like the verdict, with supporting reasoning, of a jury. There is no failsafe path to it" (Paul, 1984: 10). Paul (1984: 11) also advocates "dialogical, point-counter point, argument" as "liberating emancipatory reason". Dialogical as opposed to antialogical reasoning is central to Paulo Freire (1970/2000) pedagogy of the oppressed.

Therefore there is a role of critical theory in critical pedagogy that moves away from Dewey's strictures against dialectical reasoning. Critical theories of reflective inquiry (Freire, 1970/2000; Geuss, 1981; Newmann, 1985; van Mannen, 1977 critical reflectivity incorporates moral and ethical into reflective thinking) and on into critical discourse. Reflective thinking has had the same love hate relationship to technical proficiency skills as has critical thinking (recognizing logical inconsistencies in line of reasoning, making warranted vs. unwarranted claims, reliability of data sources, etc.) (Ross & Hannay, 1986: 13).

Vinson (1998) examines national curriculum standards in its appropriation of Dewey, Freire, and Foucault. As Biggam (1988: 239) puts it Freire gives existential critique to the 'banking model' and what Nietzsche calls the hidden power relations behind educational goals and curriculum standardizing (Boje, 2016) that is a dumbing down of the curriculum in the name of critical thinking outcomes assessment. Should education be "freeing, critical, and emancipatory" for democratic citizenship (Vinson, 1998: 5) or meet national curriculum and disciplinary association assessment standards (Hirsh, 1996, 1998; Ravitch, 1995)? Vinson (1998: 6, italics, original) argues:

"... that the imposition of national curriculum standards for the social

studies should be opposed, that the radical Left critique should be acknowledged as legitimate in that it offers the social studies an important and unique (though often ignored) perspective, and that efforts toward national curriculum standards pose significant dangers with respect to social justice, freedom, equality, identity, diversity, and democracy— dangers that threaten the very *raison d'être* of contemporary social studies education.”

Critical pedagogues (Apple, 1993, 1996; Vinson & Dunbar, 1998) “whose views build form a deep concern with power, representation, voice, social justice, diversity, democracy, and equality” (Vinson, 1998: 14). Vinson (1998: 15) contends that Dewey’s (1902/1956, 1916/1966, 1938) theory of reflexive situational experience, Freire’ (1970/2000) critical dialogism critique of ‘banking’ education model, and Foucault (1980) ‘regime of truth, made positions of critical pedagogues possible. Dewey’s (1938/1963: 78) says a “single course of studies for all progressive schools is out of the question; it would mean abandoning the fundamental principle of connection with life-experiences.” Vinson (1998: 19) says from a Freirean standpoint, “ (1) national curriculum standards represent an actual rather than potential instance of banking education (i.e., that national curriculum standards are banking education and not that they might become banking education); and (2) national curriculum standards are "oppressive.”

Foucault (1980: 131) says “Each society has its regime of truth, its ‘general politics’ of truth” and “systems of power... produce and sustain.. a ‘regime of truth’ (IBID., 133). The standardization of curriculum, and its assessment “reduces the role of teachers to technicians” and it “promotes a view of *teachers a conduits* as conduits for the delivery of knowledge that is externally defined” (Ross, 1996: 33, as cited in Vinson (1998: 26). Ross contends this is a way of diverting democracy, encourages docility, and discourses creativity and reflectivity (as summarised by Vinson, 1998: 27).

Lakes (1997) traces the roots of new vocationalism in work of Dewey and Freire, including Marxian influences of critiques of capitalism in education. New vocationalists argue that uniting vocational education with academia will result in better-trained workers who participate more effectively in the workplace and in

democracy. A Freirean theme is how new vocationalism is class driven and schools reproduce class inequities through curriculum differentiation.

Freireans use critical pedagogy that builds upon Marxist critical theory to assist working-class people to examine oppression (Lakes, 1997: vii). The new vocationalism purports greater sustainability for businesses when public education adopts standards and assessments of basic skill of the non-college bound in the work world of the high performance workplace where critical thinking and problem solving skills are seen as foundational competencies to prepare business to compete in global markets under advanced capitalism (Lakes, 1997: 1). There was dissension in the ranks, with attempts to restore common-core curriculum in the humanities by scuttling secondary-level vocational education. Most opted for higher-order cognitive skill development in critical thinking and lesson on moral training and character (Spring, 1989; Lakes, 1997: 2). My point is the new vocationalism is a significant paradigm shift away from Dewey's experiential philosophy of preparing students for democratic citizenship since it marginalises working classes through public education tracks. As Freireans point out this condemns working class to dead-end occupations, and being industrial drones for the ruling class, with increasingly limited educational opportunities to critique the social order (Arnowitz & Giroux, 1985; Giroux, 1988; Kincheole, 1995; Lakes, 1994a, 1994b, 1997; Shor, 1987, 1988).

This is an overlap between Freirean and Deweyan themes about the integration of criticism in education as a way to liberate by placing reflexivity at the centre of the curriculum to build industrial and societal democracy. However, there are still number of unresolved themes. "Today's vocational educators triumph deweyan industrial democracy through a progressivism grounded in holistic, situated, and experiential studies" (Lakes, 1998: 8).

Logue (2008: 57) argues that Dewey's pragmatism and progressive education combines democratic principles of critical thinking with collective social action in ways that threatened what critical theorist Habermas saw as the "rise of *instrumental rationality*." Louge (2008: 58) sees a an overlap between Deweyan pragmatism and Freirean critical pedagogy: "Critical pedagogues have the capacity to spark radical personal and social transformation and emphasise that their

pedagogical strategies be put in the service of educating for full and active participation in a multiracial democracy.”

Freireans, by contrast, object to ways new vocationalism does curricular tracking as a social-sorting mechanism for the labor market, keeping it class-bound, generation after generation. Freireans prefer focus on consciousness-raising, dialogical pedagogy, and demystification of layers of oppression in schools as ways to further economic and industrial democracy. Braverman (1978) notes how deskilling in vocational education is way of reproducing a labor force suited for industrial work situations. Freirian pedagogy is “firmly lodged in this history of social movement activism in the United States” (Lakes, 1998: 15).

Deweyans and Freirians share a common interest in real-life, problem solving. Freireans process of critical consciousness-raising in critical pedagogy means converting apathy of mass culture into liberatory critiques of the industrial order under late modern, global capitalism.

Critical theory is itself diverse, with Marxists offering less hope for transformation through civic or democratic action, than do Freireans. In both kinds of Critical Theory, students learn to challenge antidialogic myths and hegemonic narratives, and monocultural practices of domination and power over social injustice, and so on.

What would Dewey say about Kohlberg’s Moral Judgment?

Liu (2014) argues that Dewey’s work on moral philosophy can enrich Lawrence Kohlberg’s (1966) moral judgment psychology. Kohlberg theorized six moral development stages (from lower to higher) of cognitive structures, based on his empirical work. Dewey, by contrast, considered moral inquiry in its social and economic context, as something that “needs to be done over and over again, in terms of conditions of concrete situations as they arise” (Dewey, 1932: 169).

Balch, Saller, and Szolomicki (1993) say that the history of moral education advanced by Dewey has been usurped by Kohlberg theory of stages of cognitive development ethical reasoning but in the last decade has been rejected, in a rediscovery of Deweyan pragmatist ethics that has appeal to the 21st century.

“According to Dewey’s ideas, values and institutions needed to change as society changed” (Balch, Saller, & Szolomicki, 1993: 9).

I will briefly summarize Kohlberg’s theory:

Table 2: Kohlberg’s Levels and Stages of Moral Reasoning		
PRE-MORAL LEVEL (survival of individual)		
STAGE 1: Blind Egoism	Punishment-avoidance obedience; deference to power	Only the self is recognized for survival purposes
STAGE 2: Instrumental Egoism	Exchange of favors: ‘scratch my back, I’ll scratch yours’	Conform or deviate from others’ norms
CONVENTIONAL LEVEL (group or system valued over individual)		
STAGE 3: Social Relations	‘Good boy’ – ‘Good girl’; good behavior to please others	Recognize good and bad intentions
STAGE 4: Social System	Law and order to maintain the social system	Aware of abstract normative systems
PRINCIPLED LEVEL (beyond group norms)		
STAGE 5: Contractual	Rules & standards of whole society necessary, but those agreements do change as needed	Contracts allow people to increase mutual welfare
STAGE 6: Mutual Respect	Self-chosen moral principles appeal to logic & universality justice & individual rights that transcends concrete situational rules or social concerns	Humans are fallible and frail, impacted by communication

Liu (2014: 137): “Dewey believed that valuing and evaluation are two different things. Valuing could be a personal attitude toward a thing, for example, people could esteem something with an uncritical attitude. In contrast, evaluation is a process to critically appraise a value within a specific situation.” “Dewey held that each virtue ‘cannot be given a fixed meaning, because each expresses an interest in objects and institutions which are changing’” (Liu, 2014: 137). For Dewey, people have to work out moral theory in practice, in problematic situations where no single action is justified. A key difference between Kohlberg and Dewey, is Dewey did not support moral principals removed from the situation, and would therefore consider Kohlberg as fixed, unchangeable and didactic kind of education because it lacks investigation in the moral environment of family, school, and society. Knowing a moral principle “does not help a person deal with assessment of those moral principles” (Liu, 2014:139).

Next is a summary of the main challenges to Kohlberg’s theory of moral development that I believe Dewey would agree to.

Table 3: Criticisms of Kohlberg’s Theory of Levels and Stages	
1. Flawed research methods	Model built on study of white, privileged, males, does not look beyond justice orientation
2. Ignores Women’s moral development	Kohlberg reduces moral value to justice and instrumentality, rather than ethics of care, compassion, and responsible community (Gilligan & Attanucci, 1996).
3. Western cultural Reductionism	Reduces all moral development to Western industrialized culture moral development; dismisses Eastern moral development; ignores differences between individualistic and collectivist cultures’ moral development
4. Invariant stages is problematic	In model, person cannot understand or comprehend a moral stage beyond the one they are in. People do not progress in mass, but rather, move to higher ‘stage’ when their moral perspective no longer adequate to cope with Situation complexity, uncertainty, etc. of their moral dilemma. Stage by stage movement is therefore not automatic.
5. Ignores difference between knowing moral principle and actually doing moral behavior	In management studies this is Argyris and Schön’s (1997) difference between espoused theory and theory in use.

CONCLUSION

I have argued that much of what passes for ‘critical thinking,’ ‘critical theory’ of ‘critical pedagogy’, and ‘moral reasoning stages of development’ in contemporary educational assessment, Dewey would have found an uncritical thinking because its neither scientific nor ontological inquiry into the existential nature of Being.

Dewey (1925, 1929) situated *meaning* in Being, in the ontology of inseparability of theory and praxis. Instead of abstract epistemology (ways of knowing) Dewey (1910) preferred scientific reasoning that moved between inductive observation and deductive general meaning to bridge gaps between theory and praxis, in an experiential approach to education that aligns more closely to ‘critical pedagogy’ than to either ‘critical theory’ or to ‘moral reasoning’ principles in cognitive stages of development

Dewey (1916: 260) envisioned emancipatory work education: “There is already an opportunity for an education which, keeping in mind the larger creatures

of work, will reconcile liberal nurture with training for social serviceableness, with ability to share efficiently and happily in occupations which are productive. And such and education will of itself tend to do away with the evils of the existing economic situation” (as cited in Lakes, 1998: 23-4).

Dewey challenged Spencerian Social Darwinism, the evil of his time by a critical thinking that included participation in socioeconomic policy and decision making. There is much more to Deweyan ‘learning by doing’ than just learning to differentiate epistemic statements.

Through university downsizing and reengineering practices, outsourcing, deskilling, state funding decreases that turns students into debtors, and creating a panopticon of electronic surveillance, universities are diminishing the voice of faculty and students, as well as, academic freedom.

Deweyans and Freireans are wise to unite critical thinking with critical pedagogy to create a socially responsible capitalism (Savall & Peron, 2016) and what Lakes (1998:25) calls “capitalism with a heart.”

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