

Critical thinking: A family resemblance in conceptions

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Abstract

In this paper, I suggest that the various definitions of critical thinking posited in the literature, while distinct in some respects, effectively share a Wittgensteinian family resemblance. It is this resemblance that not only conceptually binds the various definitions but makes various references to critical thinking meaningful both conceptually and in practice — the contestable differences among them notwithstanding. A complete consensus on a common definition of critical thinking remains elusive in the literature because the multifacetedness of critical thinking resists the imposition of boundaries of particular conceptions, given its nature that is predisposed by the key notions of goal and context.

Introduction: The case for critical thinking

In recent decades in which the world has been greatly reshaped by globalization, the discourse on critical thinking as a survival skill has been taking centre stage in educational reform debates. The view that critical thinking should be the central purpose of education around which the other objectives of education revolve in a critical thinking-centric education system has been gaining currency amongst educators across the world. As a result of this, policy makers and education stakeholders are gradually recalibrating their educational goals and purposes to incorporate critical thinking in their reformed educational agenda. Educational systems in North America, the UK (Bailin, Case, Coombs & Daniels, 1999b) and in Asia Pacific countries, such as Singapore and Australia (Goh, 1997; Department of Education and Training, 2005), have embarked on reforms in which critical thinking is placed as a key component of their educational objectives.

Educators world wide argue that one of the key skills for survival in an ever-changing world is the skill to think critically and as such, the foundation of an education system should be tailored to this imperative (Halpern, 2003; Paul, 1995; Scheffler, 1989). Paul, in his seminal work, argues that “critical thinking is the essential foundation for education because it is the essential foundation for adaptation to the everyday personal, social and professional demands of the 21st century and thereafter” (Paul, 1995, p.xi).

The ability to think critically is indeed an imperative in a rapidly changing world that demands more of individuals in their personal, social and professional domains. The unprecedented impact of globalization demands intellectual ability to manage competently personal and social spaces that are continually being redefined by the forces of globalization in a knowledge base economy. And with the arrival of the new millennium, this ability is arguably a necessity for the citizens of the 21st century (Halpern, 2003) to survive and thrive. In his examination of the skills that will be needed by the workforce of tomorrow, Hunt (1995) poses the question, “Will we be smart enough?” and he argues that our quality of life and even the future state of the planet is dependent on how we address this question.

As such, this paradigm shift in education focus can be attributed to the burgeoning need of ensuring that the citizens of tomorrow are well-equipped to deal with a globalised world where without the ability to think critically one would be greatly challenged in the face of a whole host of complex tasks and roles.

Moreover, if today's education systems shoulder the responsibility of producing the work force and global citizens of tomorrow, then they should equip their charges with the ability to think not only critically but also to meet the demand for the "knowledge worker" or the "symbol analyst" — a term used to describe someone who can execute multistep tasks: compute abstract and complex symbols and ideas; attain new information more efficiently; and remain sufficiently adaptable to acknowledge the need for continuing change and for new paradigms for life-long learning in the modern world (Halpern, 2003).

In addition, the advent of the Information Age and the growing influence of the Internet is another reason why educational systems in the world, which harbour any hope for preparing future citizens for a relentlessly globalising planet, should incorporate critical thinking in their curriculum. With the estimated total global production of print, film, optical, and magnetic content that would call for about 1.5 billion gigabytes of storage that will easily translate into the equivalent of 250 megabytes per person for every person on earth (Regents of the University of California, 2001), the importance for citizens of today's world to have the ability to discern and consume the wealth of such information critically has never been more urgent.

Furthermore, educationists (Winch, 2006; Levy, 1997; Beyer, 1995; Paul, 1995; Kurfiss, 1988) have pointed out the importance of critical minded citizens in democratic societies. They contend that good citizenry entails that citizens possess the intellectual autonomy to formulate individual opinions and to make their own educated decisions and choices. It is this intellectual independence founded on critical mindedness and not passive acquiescence that will be a pillar of thriving democracies.

Defining critical thinking: Competing conceptions

As previously mentioned, a rising number of educational systems across the globe have positioned critical thinking as an essential skill for meeting the challenges of the new world. However, there is still no universal consensus on a definition of critical thinking amongst educators, philosophers and psychologists in the field, A survey of current literature on critical thinking does give credence to the view that the term has as many definitions as there are experts in the field (Benderson, 1990).

Historically, the basic notion of critical thinking can be traced back 2400 years ago to the time of Socrates (Paul, 1995) in his *elenchus*, or Socratic Dialogue. It is only in the 1980s that critical thinking began to emerge prominently in the debates among educators regarding the future direction of education (Facione, Facione & Giancarlo, 2000). But despite the growing body of literature on critical thinking, consensus on a definition remains elusive.

This lack of unity in defining critical thinking can be attributed to the differing perspectives from which disciplines such as philosophy and psychology view critical thinking. According to Benderson (1990) and Lewis and Smith (1993), these perspectives are intrinsically different in that while philosophers emphasize "critical thinking", psychologists, on the other hand, focus on the notion of "thinking skills". While philosophers have tended to focus on the nature and quality of the products of critical thinking - for example, the analysis of arguments - psychologists, on the other hand, have concentrated on the process of cognition, the components and operations used to address academic and practical issues (Reed, 1998). Moreover, cognitive and developmental psychology have an empirical research base, while philosophy has relied on theorizing and logical reasoning to reach conclusions. As such, their respective elucidation of the definitions and goals of critical thinking differ (Fasko, 2003).

Philosophical conceptions of critical thinking

Dewey (1938), who championed the cause of critical thinking in education as early as the first half of the 20th century, perceived it as reflective thinking: "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 ... [it] includes conscious and voluntary effort to establish belief upon firm basis of evidence and rationality” (p.9).

Among the other philosophical-based theories are Ennis', in which he views critical thinking as “reasonable reflective thinking that is focused on deciding what to believe and do” (Ennis, 1985, p.45). Ennis further elaborated the attributes of critical thinking into 12 dispositions and 12 abilities. He prescribed ‘a taxonomy of critical dispositions and abilities’ in which he not only delineated the skills that critical thinking involves, but also outlined dispositions that the critical thinker ought to possess (Ennis, 1987).

Facione (1984) views critical thinking as “the development and evaluation of arguments” (p.259) while Lipman (1988) argues that it is “skilful, responsible, thinking that facilitates good judgment because 1. it relies upon criteria, 2. it is self-correcting, and 3. is sensitive to context” (p.39). Siegel (1991) pointed out that, in addition to the ability to think, the critical thinker must have ‘a critical spirit’ (p.18) which can be viewed as the propensity and inclination to think critically, while Splitter (1991) furthered this conception of critical thinking by contending that for critical thinking to occur there needs to be ‘a community of inquiry’ (p.100).

Another philosophical view of critical thinking is one that has been posited by Paul (1995). He perceived such thinking as “dialectical/dialogical” in which critical thinkers must move beyond the atomistic analysis to comprehend the issue at hand and the “world view” of their “opponents” (Costa, 2003). Paul has resisted pigeon-holing critical thinking and has conceptualized it in a number of different ways that should not be viewed as mutually exclusive. His definitions of critical thinking include: “thinking about your thinking while you’re thinking to make your thinking better” (Paul, 1995, p. 91); and:

a unique kind of purposeful thinking in which the thinker systematically and habitually imposes criteria and intellectual standards upon the thinking, taking charge of the construction of thinking, guiding the construction of the thinking according to the standards, assessing the effectiveness of the thinking according to the purpose, the criteria, and the standards. (Paul, 1995, p. 21)

For Paul, critical thinking as a cognitive process alone is insufficient. Both its propensity and the attachment of intellectual standards are also essential. He underlines their importance by warning against superficiality and the impropriety of certain manifestations of critical thinking by labeling them as ‘pseudo critical thinking’ (Paul, 1995, p.47), which is antithetical to critical thinking.

McPeck’s conception of critical thinking differs from that of Ennis and Paul, arguing it cannot be a generalized skill because thinking critically cannot be done in isolation. McPeck (1981) asserts that the essence of the meaning of critical thinking is “a propensity and skill to engage in an activity with reflective scepticism” (p.8). He claims that this is conceptually impossible as thinking must be done about something and that it is determined by the problem in question. Thus thinking has to be always about something and not done in a vacuum. This view is also echoed by Brookfield (2003) who argues that critical thinking is “irrevocably context bound as it can only be understood, and its development gauged, within a specific context” (p. 157).

Differences aside, what is clear among the philosophical based theories is their tendency to focus on the importance of argument analysis that stems from the thrust of informal logic. Their primary concerns lay with the analysis of arguments on grounds of their validity and soundness, and the key role of thinking dispositions as more recent theories suggest (Paul 1995; Ennis 1987).

Psychological conceptions of critical thinking

Unlike the philosophy-based theories, psychology-based theories are grounded in the cognitive dimension of critical thinking. For instance, Bartlett (1985) defined thinking as “the extension of evidence in accord with that evidence so as to fill up gaps in the evidence” (p.75). By contrast, Sigel (1984) viewed it as “an active process involving a number of denotable mental operations such as induction, deduction, reasoning, sequencing, classification and definition of relationships” (p.18).

Other definitions from a psychological perspective include the views that critical thinking is:

- “an active and systematic attempt to understand and evaluate arguments” (Mayer & Goodchild, 1990, p.4);
- “a sequence of internal symbolic activities that leads to novel, productive ideas or conclusions” (Ericson and Hastie, 1994, p. 38); and
- “an attitude of asking why” (McBurney, 1996, p.2).

On the other hand, Bloom’s (1956) well-known hierarchical taxonomy of cognitive processing views thinking as a set of skills that range from lower order to higher order — the higher order skills requiring more complex thinking than the lower ones which are seen as needing basic and less complex thinking.

Implications of differing conceptions in education

While most educators agree that critical thinking needs to be part of education, this consensus dissipates when the notions of critical thinking are articulated and concretized in the curriculum (Bailin et al, 1999b). This departure could be attributed to the differing influences of the philosophical and psychological conceptions of critical thinking.

However, Bailin et al (1999b) argue that most conceptions of critical thinking in education, which are apparently influenced by the different orientations, mistakenly view it as merely skills, processes and procedures. While these are helpful in critical thinking, such conceptions often result in educators overlooking the important notions of quality and standards of thinking in the teaching of critical thinking. In addition, the element of contextual knowledge is also not viewed as a key dimension of what makes good critical thinking when teaching is perceived as merely skills, processes and procedures.

Like Tishman, Jay and Perkins (1997), Bailin et al (1999b) propose a conception of critical thinking that takes into account the affective and behavioral dimensions of thinking that go beyond the traditional notions of critical thinking as a mere grab bag of skills or procedures. Bailin et al argue that while skills and procedures are a part of critical thinking instruction, the emphasis in the teaching of critical thinking should be on developing an awareness of the quality of the thinking itself. They maintain that the development of bodies of knowledge within relevant contexts, and of attitudes and habits of mind in developing the natural tendency to apply critical thinking abilities are all key dimensions in the teaching of critical thinking. Furthermore, Bailin et al believe it is the incorporation of such dimensions that will lead to a more effective enactment of the critical thinking objective in the curriculum.

While conceptions of critical thinking from the education standpoint generally find their roots from the philosophical or psychological origins, they apparently also possess a more pragmatic slant. Kurfiss (1988), for example, stated that it is “an investigation whose purpose is to explore a situation, phenomenon, question, or problem to arrive at a hypothesis or conclusion about it that integrates all available information and that can therefore be convincingly justified” (p.2). On the other hand, Steel (cited in Fasko, 2003) viewed critical thinking at the college level as skills “to solve problems for which they have no ready-made procedures or solutions” (p.8) and in which the pragmatic purpose of critical thinking is made apparent.

In the absence of a consensus on a definition of critical thinking among theorists, a number of theories that synthesize the salience of each theory have been advanced. Halonen (1995), for instance, suggested that critical thinking is the “propensity and skills to engage in activity with reflective skepticism focused on deciding what to believe or do” (p.76). Fasko, who pointed out that such a conception excludes several concepts from the psychological and educational perspectives, revised this conception by suggesting that critical thinking is the “propensity and skills to engage in mental activity with reflective skepticism focused on deciding what to believe or do that can be justified” (Fasko 2003, p. 8).

Conversely, Lewis and Smith (1993) , attempt an all encompassing definition of higher order thinking which they conceive as the kind of thinking that “occurs when a person takes new information and information stored in memory and interrelates and/or rearranges and extends this information to achieve a purpose or find possible answers in perplexing situations” (p.136). This is not dissimilar to the thinking skills Bloom associates with synthesis (Bloom, 1956).

Lewis and Smith (1993) also point out that “the problem solving strategies derived from psychology and the disciplined thinking represented by philosophical thought both contribute to achieving the goal of learning to reason”. Having stated this, they nonetheless believe that neither perspective on its own is sufficient in understanding the conceptualization of higher order thinking.

Critical thinking conceptions: Common platforms

While the various theories of critical thinking certainly differ with regard to some key points, they also reveal some common emphases (Ennis, 1987; Lipman, 1988; McPeck, 1981; Paul, 1993; Siegel, 1988). Johnson (1996, p. 46) identifies the following similarities among the theories:

- a reflective skeptical or questioning attitude;
- a sensitivity to value- or ideology-laden assumptions;
- an insistence on appropriate supporting grounds before accepting disputable claims;
- an appreciation of the various criteria applicable to good reasoning and argument (whether general or subject dependent);
- skill and judgment in the analysis and evaluation of claims and arguments; and
- a disposition to be self-reflective, sensitive to one’s own possible biases or assumptions.

Johnson’s examination reveals not only an emphasis in philosophy-based approaches to critical thinking on intellectual theories and skills taught by informal logic, but his examination also notes philosophers’ concern for affective propensities to exercise those skills (Reed, 1998). In addition, there seems to be common threads that run through the various theories: the act of critical thinking involves specific processes and/or skills; the propensity to think critically is crucial; and that a culture or an environment that promotes and reinforces such critical thinking is pivotal.

Critical thinking conceptions: A case for a unifying family resemblance

In Follman’s view (1987), the urgency of finding a commonality in the very definition of critical thinking is based on the assumption that without an agreed definition, educators and researchers would be confronted with the difficulty of being unable to determine the efficacy of critical thinking with regard to its teaching or measurement. Bailin et al also suggest that educators ‘need a defensible conception of critical thinking and a perspicuous account of the characteristics or qualities necessary for being a critical thinker’ (1999b, p.286).

I suggest one way to get a sense of understanding the differing notions of critical thinking simultaneously and to find some commonality among them is to employ Wittgenstein’s (1958) notion of ‘family resemblance’ (p.67) – a significant idea in the philosophy of language that Wittgenstein first coined in his book, *Philosophical Investigations*. His idea, I propose, not only provides one way that the multifaceted nature of critical thinking can be grappled with and its

nature understood, but can also provide a means of mediation in the conceptual conflict and in the negotiation of tension arising from competing definitions.

While this does not mean that 'any given conception of critical thinking is the correct one and all conceptions of critical thinking are equally good or defensible' (Bailin et al, 1999b, p. 286), it nevertheless provides a common platform to begin grappling with the fundamental similarities that necessitate the conception of critical thinking – the 'family resemblance' (Wittgenstein, 1958) that exists in the various conceptions.

In the development of the notion of 'family resemblance', Wittgenstein (1958) had argued that certain terms such as 'games', 'numbers' and 'family' would not allow a sufficiently complete definition. However, this certainly has not stopped these terms being used as meaningful references and applications. In the case of the idea of 'games', Wittgenstein contended that there is nothing that is common to all conceptions of the term 'games', but that these definitions of games held certain similarities and relations with each other as some things that we consider 'games' evidently involve winning and losing, but not all; some are entertaining but not all; some require luck but not all, and so forth.

The same applies with the notion of 'numbers'. There is nothing that can be said that all numbers have in common. This, however, has not stopped its meaningful usage as we extend the notion to include prime numbers, integers, cardinal numbers and the like. The only limit it would seem in this case lies in the capacity of mathematicians to innovate the limit. It is with a similar example of the term 'family' that Wittgenstein abstracts a notion of similarities and relations:

I can think of no better expressions to characterize these similarities than "family resemblance"; for the various resemblances between members of a family: build, features, colour of eyes, gait, temperament, etc. overlap and criss cross in the same way.... (Wittgenstein 1958, p.67)

I propose that the definitions of critical thinking found in the literature can be thought of similarly in this way. Although the notion of 'family resemblance' might be taken to have "blurred edges", Wittgenstein (1958) points out that terms such as 'game' and 'numbers' nevertheless are sensible; the lack of precision has not rendered such terms meaningless. Furthermore, a clear demarcation can be drawn to suit whatever purpose there is present. Consistent with Wittgenstein's stance, I believe that the fact we cannot give a precise definition to something, in this case critical thinking, should not stop us from knowing what that something is, or from using it in any meaningful way. As he says, "... this is not ignorance. We do not know the boundaries because none has been drawn" (Wittgenstein, 1958, p.69).

Therefore, I suggest that with the notion of critical thinking there, too, is a kind of family resemblance inherent in the competing definitions of critical thinking and that they are indeed generalizable at the level of context and purpose. That is to say, the definition of critical thinking is dependent on its context and purpose and is largely determined by them. This, however, does not imply that one conception of critical thinking is a fundamentally distinct concept from the other. Rather there are relations and similarities among these definitions that "overlap and criss cross" (Wittgenstein, 1958, p.67).

Like Paul (1995), I am of the view that critical thinking should not be restricted to a particular conception which is exclusive, given the fact that it clearly has both affective and cognitive dimensions. Rather, building on consensus with regard to the essence of critical thinking that is emergent in the various fields, I argue that critical thinking, like democracy, has myriad manifestations which are largely informed by its context and purpose. For instance, if my immediate context is the analysis of a newspaper editorial and the purpose is argument analysis, then I do not see why critical thinking in this case cannot be appropriately viewed as "the development and evaluation of arguments" (Facione, 1984, p.259). If my immediate context is

researching into a real life problem and my goal is to find a workable solution, then I do not see a contradiction in defining critical thinking in this instance as having “to solve problems for which they have no ready-made procedures or solutions” (Steele, cited in Fasko, 2003, p.8) or “reasonable reflective thinking that is focused on deciding what to believe and do” (Ennis, 1985, p.45).

However, these instances of thinking would not have been adequately defined had the context and purpose not been considered. Defining the first instance of thinking, for example, as a means “to solve problems for which they have no ready-made procedures or solutions” and the second instance as “the development and evaluation of arguments” (Facione, 1984, p.259) would not have been entirely appropriate as these would not have regarded the context and purpose of the thinking activity. The same can be argued for conceptions such as Bailin et al (1999) and Tishman et al (1995) where the conception of critical thinking takes into account the larger context of educational goals.

This, however, does mean that all these definitions diametrically contradict one another. On the contrary, I suggest that the various conceptions of critical thinking share a ‘family resemblance’ in the way that Wittgenstein suggests the concept of ‘games’ and ‘numbers’ do. Therefore, I am of the view that critical thinking should not be and cannot be tied down to an exclusive conception that precludes all else. Just as our use of terms such as ‘numbers’ and ‘games’ has not stopped us from employing them meaningfully, I suggest the same in the case of education with critical thinking — we can employ it meaningfully and constructively without having a singular, precise definition.

A further issue that is to be raised in the definitional debate of critical thinking is whether the lack of a common definition has truly been an impediment in its application as suggested in school contexts. While Follman (1987) cautions that the absence of an agreed definition of critical thinking would mean that educators and researchers would be confronted with the difficulty of being unable to determine the efficacy of critical thinking with regard to its teaching or measurement, I suggest that generally, this has not been the case. Furthermore, in the teaching and the measurement of critical thinking efficacy, for example, the questions that should dominate are: ‘What is it that I aim to teach?’ and ‘What is it that I aim to measure?’ where ‘it’ in both cases should naturally correspond. If the aim of critical thinking is to teach students to analyze arguments for their weaknesses and soundness, then measurement of this ability could be undertaken on the basis of how well this has been done in terms of Paul’s intellectual standards (1997). If the aim of critical thinking is to develop students’ thinking dispositions, then measurement of how well these have been developed could be undertaken by using a critical thinking disposition inventory such as the Watson-Glaser Critical Thinking Appraisal (Watson & Glaser, 1980) — though this may not be infallible.

Therefore, my contention is that it is pointless and counterproductive to conceive a definition of critical thinking without having first considered its context and purpose. Consider the cases where critical thinking has come to be a pillar in the education system, such as those in Singapore in the shape of *Thinking Schools, Learning Nation* vision (Goh, 1997) and in the state of Victoria, Australia in the manner of the Victorian Essential Learning Standards (Department of Education & Training, 2006). Such incorporations of critical thinking in the educational system show that the debates about definitions and their consequent concerns have not stopped critical thinking from being instituted as an educational objective. Each of these education systems has outlined the input it intends from the critical thinking initiative. Singapore, for example, delineates its critical thinking objective in the aim “to enable students to acquire and understand core thinking skills and processes, apply skills in learning, decision-making and problem solving situations and develop habits to become critical, creative and self-regulated thinking learners” (Curriculum Planning and Development Division, Ministry of Education of Singapore, 1998). By contrast, the Victorian Essential Learning Standards (VELS) places “thinking as one of the three domains situated in the interdisciplinary learning strands in which this is further broken down to

three dimensions: reasoning, processing and inquiry; creativity and reflection; evaluation and metacognition” (Department of Education & Training, 2006, p.59).

It is evident in these cases that the delineated sets of aims have been influenced by the different conceptions of critical thinking discussed above and determined by the individual context and purpose of each education system. While the aims and conceptions of thinking are similar, they are clearly not identical. What is more telling in these cases, I argue, is that the meaning and conceptualization of what critical thinking or thinking entails is determined by the very context and purpose of the thinking which, in these cases, are educational objectives. As such, this illustrates that critical thinking, or thinking, can be meaningfully conceived, understood and practised in spite of the lack of an unequivocal definition agreed by all philosophers, psychologists and educators in the field. This, I think, demonstrates that while the conceptions differ, it is the family resemblance within these definitions that make their references and practice still meaningful and constructive.

Furthermore, Halpern (2003) argues that ambiguity and definitional disagreements surrounding other constructs such as ‘political conservative’, ‘economic indicators’, ‘general education’ or ‘liberal arts’, have not prevented them from being used meaningfully in specific contexts. For example, a lack of a clear definition of what ‘liberal arts’ entails has not prevented educational institutions from having a liberal arts faculty.

Similarly, critical thinking cannot be restrained by particular conceptions because its applications are far ranging; it is a ‘polymorphous or multi-form enterprise’ (Bailin et al, 1999a, p.279). To define critical thinking stringently, I believe, would be to weaken its capacity and applicability. Education systems attempt to develop thinkers for the very reason that their critical thinking abilities can be applied in tomorrow’s work place. Therefore, if we deny the multifaceted nature of critical thinking by defining it strictly and narrowly, we run the risk of compromising the multifaceted nature of critical thinking and its far ranging applications.

Tomorrow’s workplace extends beyond the business environments to science and research, manufacturing, design, the arts and politics. Critical thinking in these domains, I argue, is manifested differently. But this is not to say that manifestations in each context are so far removed that comparisons among them are meaningless. In fact, it is the goal and context of each domain that precisely defines the nature of critical thinking. For example, in science, critical thinking can be manifested in the establishment of rigor in analysis and examination of scientific methods to corroborate findings. In manufacturing, problem solving to better a product or its assembly, for example, may be the heart of critical thinking. While in the arts, critical thinking can be manifested in the aesthetic choices the artist makes. In politics, critical thinking may involve not only analysis of an opposition’s arguments but may also involve problem solving of issues, cost benefit analysis of potential political decisions and the like – for both citizens and government I argue. In light of this, it would not be unreasonable to suggest that in all these areas, there are manifestations of critical thinking; a distinctive facet or facets of it more at work than the rest. But these manifestations, however, cannot be aptly captured by one particular definition as one exclusive definition cannot do all these manifestations semantic justice.

Therefore, in light of the various manifestations of critical thinking, it would be reasonable to suggest that in the school contexts, critical thinking can be and should be applied in slightly different ways and with different emphases, depending on the subject domains. In Science, for example, students might learn to develop their sense of rigour and standards in objective research, whereas in the Languages and Arts, students might be trained in assessing and writing argumentative and creative pieces. It is through the exposure to the polymorphous and multifaceted nature of critical thinking manifested in the different domains that learners could develop their critical thinking faculties more holistically. I argue that such exposure to the different applications of critical thinking, could serve two key aims. It could raise learners’ awareness of the far ranging capacity of critical thinking and simultaneously make learners cognizant of the family resemblance that exists in the various critical thinking manifestations.

Therefore, what makes critical thinking conceptualizations and applications meaningful is that there is a family resemblance among these conceptions and manifestations in which the goal and context of each enactment determine the very nature and manifestation of critical thinking. It is this family resemblance that has not prevented critical thinking from being made both meaningful conceptually and in practice despite the differences. This point is echoed by Halpern (2003) when she writes:

there is enough agreement among the authors in the field of critical thinking to allow educators to teach courses in which it is the main goal and content matter, even if there are squabbles over the more specific language used to convey that meaning (p. 357)

Conclusion

I am mindful that my suggestions in this paper will not put an end to the ongoing debate about conceptions of critical thinking and the continuing pursuit of a common, singular and unequivocal definition. Achievement of this end, has not been the focus of my paper. Rather, the aim has been to illustrate that the difficulties in finding consensus has not, will not, and should not stop those who champion critical thinking in education from employing the term in a meaningful and constructive fashion. In fact, these difficulties in my view are suggestive of the nature of thinking itself; that it is multifaceted. One way we all can come to terms with the tensions and gaps that are created by this multifaceted conceptualization is to view the discrete manifestations of critical thinking in the different domains as sharing a family resemblance; all having some overlapping and criss crossing similarities and relations. While others may argue that these differences raise problematic implications about the ways in which critical thinkers are developed and critical thinking is taught, the larger question has to be this — Should the progress of the noble aims of education, such as the development of critical thinking, be necessarily impeded by the conflict of what is primarily semantics? In light of the number of educational systems that have incorporated critical thinking in their curricula, this certainly has not proven to be so. Moreover, in the case of critical thinking, I suggest that what should matter more is learners' engagement with and enactment of critical thinking, regardless of the lack of a singular and unequivocal definition. If tomorrow's world is a better place because its citizens are better thinkers in the different domains of their lives — personal, professional and social — then one of the key goals of education would certainly have been achieved.

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