

Critical thinking: A western guise or a thinking, cultural, and pedagogical fatigue

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Abstract

The argument that non-western countries lack or do not have critical thinking has ushered in a strong scholarly debate. Several scholars perceived this statement as ‘Othering’ lacking evidence and mired in ethnocentric dogma. Indeed, this paper is to redefine CT, indicating it is not culture-specific and is not necessarily a western legacy. CT has evolved and developed across different civilizations, even long before the Greeks. This study interprets CT as critical intelligence, learnable and transformable, with emphasize on its linguistics determinism; meaning that any language with a question structure enables its people to activate this critical intelligence and master it through practice. However, culture still plays a potent role in shaping the CT style.

Keywords: Critical thinking; Critical thinking and othering; Critical thinking and westernization; History of critical thinking; Critical thinking is universal; Critical thinking is not culture specific

1. Introduction

1.1. Critical thinking

1.1.1. What is critical thinking?

Throughout the development of critical thinking, there has been much discrepancy in the conceptual definition of critical thinking (Facione, 1990). Critical thinking has a strong record of definition and redefinition (Ennis, 2016; Johnson and Hamby, 2015). Scholars have formulated different interpretations of ‘critical thinking’ such as reflective thinking (Dewey 1933, p.12),

‘a sequence of internal symbolic activities that leads to novel, productive ideas or conclusions’ (Ericson & Hastie, 1994, p. 38), a generic welt of skills (Ennis, 1992), discipline-specific processes (McPeck, 1990), the educational cognate of rationality (Siegel, 1988), an active and systematic formation of good judgment and evaluation (Mayer & Goodchild, 1990), thinking that meets relevant standards or criteria of acceptability (Bailin & Siegel, 2003), an activist engagement with knowledge or an act of self-reflexivity (Moore, 2013).

Typically, definitions of CT also include lists of dispositions that govern the willingness of the user to employ thinking skills in their everyday lives. Beyer (1985) argued that CT requires a ‘frame of mind’ as well as specific mental operations. This frame of mind includes alertness to the need to evaluate information, a willingness to test opinions, and a desire to consider all viewpoints. Paul and Nosich (1992) emphasized that “critical thinking entails the possession and active use of a set of traits of mind, including independence of thought, fair mindedness, intellectual humility, intellectual courage, intellectual perseverance, intellectual integrity, curiosity, confidence in reason, the willingness to see objections, and to enter sympathetically into another’s point of view” (p. 5).

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Walters (1994) indeed identified two strands of critical thinking: the first one focuses on the canons of logical analysis and argumentation. The second element shifts attention to broader formulations, taking into consideration the complex, situated, historical, and interconnected nature of worldviews and human communication. Rather than viewing critical thinking as context-free and universal, the second wave perceives it as contextually embedded, where one's judgment is undergirded by historical, institutional, moral, and socio-cultural conditions and factors.

1.2. Factors Influencing Critical Thinking

Different factors can have an impact on critical thinking. Scholars have outlined a list of variables that may impact CT.

1.2.1. Individual factors

Several studies emphasize a relationship between critical thinking and student or individual factors. Student or individual factors may be understood via age, gender, racial or ethnicity, nationality, GPA, parent's child rearing, attitude, confidence, self-esteem, self-efficacy, number of years of education, learning styles, residency, and nursing experience (Chaisuwan, 2020). The learner factors also involve achievement, reading ability, achievement motivation, learning intention, attitude towards learning, and emotional aspects. Anyhow, reading ability has been reported as the major element with the greatest influence on criticality (Chaisuwan, 2020).

1.2.2. Institutional and professional factors

Moreover, institutional or instructional factors such as teaching and learning can affect CT (Tiwari et al., 2003). Those factors can be manifested through curriculum design, learning activities, teaching material, the teaching and learning environment, and the teaching method. However, the learner factor, which included achievement, reading ability, achievement motivation, then the individual and caring, was the sub-factor with the greatest influence on critical thinking skills in Mahapoonyanont's (2010) study.

1.2.3. Faculty Factor

Purvis (2009) added faculty Factor to the list that impact CT, arguing that faculty support and reinforcement are significant tools in the development of critical thinking skills among students. The influence of this element is supported by Outos's (2006) as well as Petchoo and Vanitsuppavongs' (2013) studies, noting that the instructional management of instructors is important to promoting critical thinking among students. The above studies make educators' roles very critical in developing effective teaching strategies that inspire critical thinking. Faculty support is an asset in achieving this pedagogical goal (Purvis, 2009). In a nutshell, faculty support (reinforcement) factors, personal factors (curiosity, confidence, and perseverance), and pedagogical factors (curriculum design and integrative learning activities) are all significant elements in the improvement of students critical thinking skills.

1.3. The influence of culture on critical thinking

Even though the improvement of critical thinking may focus chiefly on known factors such as individuals, teaching and learning, or even faculty, yet another vital factor can also influence CT, which is culture. This variable has indeed received little scholarly attention (Lun et al., 2010; Ten Dam & Volman, 2004; Tiwari et al., 2003).

Sternberg (2003) emphasised that cultural explorations of human thoughts around the world are more than just in terms of abilities; understanding human thought cannot be understood and studied without an in-depth investigation of the culture that shapes this thinking or interaction. Moore (2011) argued that there is a "multiplicity of practises" with various and even competing constructions and expressions of critical thinking across cultures. Critical thinking as a practise goes beyond the canon of logical argumentation that serves as the objective standard of good thinking to mark the cultural implications, norms, and practises that impinge on human thinking and actions.

2. Culture influence

The word 'culture' may refer to a welt of attitudes, values, beliefs, assumptions, and behaviours shared by a group of people throughout the generations via symbols, language, rituals, and material objects (Barnouw, 1985; Hofstede, 1991). Hofstede and Bond (1988) defined culture as 'the collective programming of the mind that distinguishes the members of one category of people from those of another (p. 6)'. Hofstede's (2001) Cultural Dimension Theory argued that individuals from diverse nations, countries, and groups have different cultures. Those cultures create certain ways of behaving and taking actions that are developed and fostered at an early age.

As a result, there is no doubt that cultural norms have an impact on how students interact in the classroom. Teachers who have taught across the world have observed how local culture may influence students' behaviour (Rear, 2017). For example, it would be impossible to imagine a classroom full of Italian students being the same as a classroom full of Japanese. A class of Asian students is likely to be quieter, shaped by longer silences, fewer interrogations, and less active discussion. Learners tend to communicate with each other and their teacher in a more indirect fashion, avoiding any break of the social bond (Holmes, 2000, as cited in Rear, 2017).

Yet, a quiet class is not necessarily a sign of learners' deficiency in cognitive skills or a disinterest in the learning material. As an illustration, many studies have shown that, in contrast to their Western counterparts, Asian students perceive silence to be an important component of deep thinking (Harklau, 1994; Kim, 2002). Additionally, Chiu (2008) has identified three types of silence noted among Asian students, only one of which is equated with the absence of ideas and cold discussion.

CT is not necessarily incarnated through heated discussion or debate (Rear, 2017). Durkin's (2008) study showed that Asian students are capable of adapting to the principles of critical debating and argumentation, but in a way that preserves social harmony and cultural values. Hence, the way non-Westerners, particularly Asians, respond to CT in class is different from their western counterparts, owing to the cultural factor shaping the CT style they opt for. In brief, argumentative cultures such as those of the Middle East and Latin America are known for their heated discussions. Assuming CT is all about argumentation, and then individuals from those cultures are to be considered highly critical.

Critical thinking is culturally contextualized; socio-cultural obligations, norms, and values play a significant role in people's CT strategies (Maxcy, 1985). There is no 'view from nowhere' because all perspectives or positions are shaped by particular historical, economic, and social conditions (Smeyers & Marshall, 1995). The historical and social rootedness of human beings "will determine the kind of questions that will be raised, the kind of answers that can be given, and the kind of solutions that will make particular questions disappear for us" (Smeyers & Marshall, 1995, p. 223).

3. Critical thinking styles

3.1. Analytical Cognitive Style vs. Holistic Cognitive Style

Western cultures (Europe and America) and East Asian cultures (e.g., China, Japan, and Korea) are seen as the most contrasting cultures in the world (Mote, 2003). Past cross-cultural psychological studies pointed out that the contradicting cultural manifestations among the two nations lead to different cognitive styles (Nisbett & Masuda, 2003). Western culture is shaped by analytic cognitive styles, whereas East Asian culture emphasises more holistic cognitive styles (Choi et al., 1999; Peng & Nisbett, 1999). Individuals with an analytic cognitive style are more interested in the validity and soundness of an argument; they focus on the use of logical evaluation or rules to detect or reject invalid arguments (Nisbett et al., 2001). An analytic cognitive style, on the other hand, tends to focus on breaking ideas down and evaluating the components individually to help the problem-solving process (de Oliveira & Nisbett, 2017).

People with a holistic cognitive style focus on broader background and contextual information while they go through the problem-solving process. A holistic cognitive style integrates multiple perspectives to generate individuals' own perceptions (Peng & Nisbett, 1999). In addition, people with a holistic cognitive style are more likely to accept the coexistence of opposites and the values and perspectives held by others (Littlewood, 2000; Liu, 2001; Peng & Nisbett, 1999; Nisbett et al., 2001).

3.2. Individualism vs. Collectivism

Cross-cultural psychological researchers explained the different cognitive styles through the constructs of individualism and collectivism (Hofstede, 1984; Wang & Machado, 2015). Hofstede (1980) found that people raised in Western developed countries (e.g., the U.S., Canada) have high levels of individualism, whereas people from East Asian countries (e.g., China, Thailand) have high levels of collectivism. Individualism values self-expression and freedom. In contrast, collectivism values harmony and relationships. People seek to maintain group harmony to avoid contradictions (Wang & Machado, 2015). Results from studies pertaining to the Chinese educational system indicated that Chinese students were less encouraged to question teachers' authority (Coleman, 1996; Li, 2012; Zhou, 2018). Also, Chinese students perceive the critique of peers' ideas or scholarly articles as disruptions of group relationships and harmony (Carson & Nelson, 1996).

In addition, Chinese students have been described as being quiet in the classroom (Olaussen, 1999; Paton, 2005); class debates in Chinese classroom environments might be viewed as upsetting to others (Durkin, 2008; Tan, 2017). This pushed some scholars to draw a biased conclusion, labeling Chinese students as lacking critical thinking skills compared to students from Western countries (Ip et al., 2000; McBride et al., 2002; Salsali et al., 2013; Tiwari et al., 2003).

On the other hand, the classroom environment in the U.S. encourages critical thinking, argumentation, and a debating culture (Hamp-Lyons, 1991;; Li, 2012; Nisbett et al., 2011). Scholars claimed that this high-level class discussion rooted in individualistic cultures exhibited greater self-assurance than those in collectivistic cultures (Markus & Kitayama, 1991; Tafarodi & Swann, 1996; Triandis, 1994). Students in America actively engaged in classroom activities, expressed their opinions, and exchanged ideas freely (Duncan et al., 2016), and were able to confidently communicate their thoughts and ideas by interacting with instructors and peers (Wan, 2001).

3.3. Critical Thinking Style Inventory

Critical thinking style ‘describes the way an individual goes about thinking and reaching solutions to a problem (Lamm, 2015a, p. 1)’. Lamm and Irani (2001) developed the University of Florida Critical Thinking Inventory (UFCTI), which measures critical thinking styles (Lamm, 2015b). The critical thinking style inventory distinguishes the approach that an individual uses to gather or process information through a continuum between engagement and seeking information (Lamm & Irani, 2011).

Each critical thinker has an individual style of processing information regarding a specific issue (Lamm & Irani, 2011). Individuals who have the engaging critical thinking style are called engagers, and individuals who have the seeking information critical thinking style are called seekers. There is no right or wrong style of critical thinking. An ideal critical thinker would be able to utilize both critical thinking styles when appropriate instead of operating only in one specific style (Lamm & Irani, 2011).

The literature review demonstrated that there is no single way to demonstrate critical thinking. The practice and manifestation of this element of thinking differ from one culture or individual to another, as various factors may shape its application and style. One culture tends to apply the explicit CT style, while others are more attached to the implicit-based approach to CT. There is no good or bad CT style (Lamm & Irani, 2011). Though the explicit style seems more productive, CT should be highly contextualized (Maxcy, 1985), and individuals have to switch across various styles as needed.

International students are asked to make more efforts to apply the CT style of the host country or university. This is not to normalize with the system or abandon one’s own cultural values, but to interrogate and perceive things in a way that is not hurtful to the host culture. Plus, exams and evaluations in western countries are based on those CT styles; understanding the nature of those practices can help foreign students improve their scoring.

4. Discussion and Conclusion

4.1. Critical Thinking and ‘Othering’

The extant research reports that non-western students, particularly Asians, are generally weak in critical thinking, especially when compared to their counterparts in the Anglophone countries (e.g., Atkinson, 2007; McBride, Xiang, Wittenburg, & Shen, 2002; Tiwari, Avery, & Lai, 2003; Turner, 2006). However, most of these studies that compared Asian students to their western counterparts tested Asian students in their second languages. Hence, different scholars refused those studies’ results, arguing that those students were cognitively loaded, which affected their performance in the test. Such studies lack credibility and validity and cannot be taken for granted, as language proficiency has been found to be a significant variable in CT scoring.

Paton (2005, p. 1; Lun et al., 2010) argued that the claim that Chinese students lack critical thinking skills is unacceptable, for this biased judgment does not take into account the influence factor of Foreign language fluency. Further, Floyd (2011) and OECD (2014) argue that when Asian students are tested in their first language and in critical thinking as well as other more traditional disciplines, they tend to score highly. This phenomenon has sometimes been referred to as the ‘Asian paradox’ (Biggs, 1996). Plus, one weakness of these studies is the use of standardized critical thinking tests, which differ fundamentally from the tasks students are required to carry out at university (Rear 2017).

Al-Sulaima (2009) rejected those cross-cultural studies (e.g., Mari, 1971; Mearig, 1967; Torrance, 1966) that indicated that children in modern societies scored high on creative thinking compared to children in undeveloped countries; the

more developed the culture, the more creative were their children. Al-Sulaima (2009) argued that applying tests of creative abilities to various cultures (even with high validity results) without studying the exotic culture, values, literature, and beliefs and considering these factors in each culture would result in a bias. Hence, the results of some cross-cultural studies must not be generalized to other cultures; each country has its own development and values, which were not considered by some studies aforementioned (Al-Suleiman, 2009).

Moreover, a recent study conducted at Stanford University found that Chinese freshmen in computer science and engineering programs possessed critical thinking skills, including the ability to identify assumptions, test hypotheses, and draw relationships between variables, that were around two or three years ahead of their peers in the United States and Russia (Hernandez, 2016). Floyd (2011), meanwhile, tested Chinese speakers with the Watson-Glasser Critical Thinking Appraisal and observed that scores were significantly higher when they did the test in their native language than in English (Rear 2017).

Ramanathan & Kaplan (1996a, 1996b) and Stapleton (2001) argued that these scholars' arguments that non-Western countries lack CT mechanisms are not based on empirical evidence. Stapleton (2001) noted that popular topics in current ESL composition textbooks—such as gun control, freedom of speech, and gender issues—are not as critically recognized and discussed by the public in, for instance, Japan as in the U.S. Stapleton went beyond the language issue to emphasize the student's social and cultural context. The differences in a student's knowledge of the topic can determine their performance in critical thinking. This was proven by the study that investigated the traits of critical thinking in the English writings of 45 Japanese undergraduate university students.

These strands of critical thinking included such elements as arguments, evidence, recognition of opposing viewpoints, and fallacies. The results indicated that the students presented a deeper understanding as well as a higher quality of analysis of an issue about which they had more socio-cultural knowledge (i.e., rice importation in Japan) than an issue about which they had less socio-cultural knowledge (i.e., gun control). An issue such as rice importation in Japan, Stapleton states, speaks more socially, historically, and culturally to the minds and hearts of the students. Even with the unfamiliar topic of gun control, the students were able to give sound arguments, such as the need for protection as a pro and the facilitation of murder and crime as a con. These results counter the popular understanding that Japanese-English speakers are in general unskilled at using critical reflection for L2 academic ends.

4.2. The Westernization of CT

Several scholars (e.g., Atkinson 1997; Fox 1994; Norris 1995) have westernized critical thinking, stressing its cultural value that can only be learned and practiced in Western contexts where individuals enjoy high freedom and rationality. For them, students' disability to actively interact in classroom discussions and activities is cultural. For example, avoiding probing questions is rooted in their culture, which aims not to disturb the status quo or social cultural values. Scholars who advocate the claim that CT is culture-specific accentuate that teachers are superior and their knowledge is indisputable in Asian culture; hence, any questioning or interacting with teachers' knowledge is an act of defiance. They also added that Asian education is based on traditional approaches that do not put learners in contact with CT.

Numerous scholars perceive non-Western countries as not conducive to a Western style of criticality (Atkinson, 1997; McBride et al., 2002). For example, Sigurosson (2017) claimed that Confucian culture does not promote critical thinking and is more seen as conservative, reactionary, and ideological. Besides, Dong (2015) argued that *it has been commonly acknowledged that Chinese traditional culture is generally uncritical. Confucianism shaped a tradition that valued respect for parents and the elderly, the collective good, social order, and harmony. This is in contrast with ancient Greek civilization, which valued independent thought, reason, and the ability to debate and argue in public (p. 357).*

However, Normile (2023) claimed that respect for elders and the pursuit of social harmony principles have become uncritically necessary, though those principles were already shared and promoted by several Ancient Greek philosophers. Though Confucianism has had an immense impact on Chinese culture, Chinese culture is not conducive to Confucianism; there are other traditions and philosophies that have influenced Chinese culture, such as Xunzi, Mozi, and Zhuangzi. For those scholars, CT is only practiced in western democratic countries because some elements in Confucian cultures and thinking prevent the grasp of critical thinking in schools. Thus they deduced that 'Confucian culture' is not conducive to 'Western' style criticality (Atkinson, 1997; McBride et al., 2002).

First, there is a problem with the CT definition. Most definitions in the literature label CT as a scientific framework or a problem-solving method. For example, Scott and Markert (1994) argued that "medical education trains students to use critical thinking skills in active problem solving regarding patient care" (p. 920). Siller (2001) associated CT with the ability to solve problems and design projects in the engineering field. Rear (2017) questioned the paradox of the

excellence of Asian students in scientific disciplines, which utilize the same set of cognitive skills borrowed to define CT. Accordingly, critical thinking is no less important than scientific thinking (Paton, 2011).

CT is ill-defined in the literature. The CT element is often linked to argumentation and academic debate, with alienation to an important dimension of CT which is dialogical thinking. Facione (1990) to define CT emphasized on elements of mutual respect, open-mindedness, and fair-mindedness in appraising reasoning. Similarly, Thayer-Bacon (1993) argued that the dimension of 'care' needs to be explicitly added to conceptions of critical thinking. Without the incorporation of this dimension, the concept seems dry and lacking a significant element deemed to protect the practice from falling into the trap of monologue. Being open to Asian culture, particularly its dialogic chapter makes CT not only analytical but transformative.

If CT is perceived as all about argumentation, then dialogue is only about 'other' normalization, which is not the case. Moving from monologue to 'otherlogue' (critical dialogue) is needed to achieve a holistic understanding of critical dialogue. Paul (1981) split critical thinking into a weak and strong sense. The weak sense of critical thinking is argument analysis, synthesis, and evaluation, that is, the epistemic and practical. However, the inter-subjectivity part is found in CT's strong aspect, which is the ethical sense of fair-mindedness with the aim to reduce egocentric or bias thinking. Thus, for CT to be considered a scientific method, it needs the ethical sense that ensures its efficiency, validity, and reliability. Limiting CT to an argumentation and debating context makes the practice a counter-argumentation style lacking the ability to see the worth of opposing opinions. Further, Socrates argued that "educating the mind without educating the heart is no education at all." The dialogic dimension makes the critical thinking process vibrant, moving from a static level of thought to a higher level, which is further enhanced by critical dialogue. Hence, the idea that CT is a western idea is an oxymoron lacking evidence and mired in 'Othering' paradigm.

Referring to CT as culturally specific or a western legacy is not only wrong but a pure act of cultural bias and ethnocentric discourse. Paton (2004) stressed that there is a tendency for powerful cultures to usurp the knowledge and intellectual roots of less powerful cultures and claim them as their own. Those who advocate the concept of greater power as being equal to intellectual superiority are no less cultural chauvinists (Paton, 2004). The Western approach to the history of science connects its origins with the ancient Greeks, with indications of its redevelopment during post-renaissance Europe, but with no hint to Muslims' translation and redevelopment of such thought in the middle ages. Lal (2009) refuted such westernization of the history of science, arguing that it was in fact captured from the Arabs during the Crusades and given a theologically correct Greek origin. Similarly, Paton (2004) rejected the western hypothesis of the origin of science, claiming that Algebra is an Arabic term after all and Zero was borrowed from Indian tradition.

Indeed, historically speaking, Babylonia had an impact on Greek traditions and philosophy; there is no doubt that Babylonian teachings and customs influenced Socrates' mode of questioning. Schumann (2021), in his study *On the Origin of Logical Determinism in Babylonia*, argued that the idea of logical determinism can be traced back to the Old Babylonian period. Boolean matrices showed that the Babylonians used some logical-algebraic structures in their reasoning. Consequently, the inspiration of logical contingency was delivered within a new mood of thinking presented through Greek prose as well as historical and philosophical narrations by Schumann (2021).

Furthermore, India had a strong tradition of public debating and argumentation. For example, two of the greatest Buddhist logicians (Tscherbatsky, 1962), Dignaga and Dharmakirti, shaped the Indian tradition of debating and argumentation. Dignaga won his celebrity and royal support through his defeat of the Brahmin Sudurjaya at Nalanda Monastery. In a similar vein, Matilal (1990) asserted that there is no proof that Aristotelian ideas have had any influence on India and that the Indian logical tradition is entirely indigenous. Moreover, Tscherbatsky's (1962) work, dealing mainly with the works of Dignaga and Dharmakirti, illustrates that India is one of the greatest logical and philosophical civilizations in the world.

Besides, China had its own indigenous and independent logical tradition even before the Greeks. For instance, two of China's logical schools of thought are the Mohists and the Logicians. The Mohists interacted with the concepts of deduction and induction while creating a model of reasoning, evaluation, and judgment called the mental model. The Mohists realized that the thought system was a prerequisite for modern science. They created a way of thinking called a 'mental model to evaluate reasoning' (Ronan 1978). Therefore, Confucius is clearly concerned with active thinking, not passive knowledge acquisition.

Yet, the above illustration is not to argue that CT or science is rooted in the East but to point out the fact that critical thinking is universal and has evolved and developed across different civilizations and cultures. Some scholars emphasize that viewing critical thinking as distant from non-Anglo (i.e., non-English-speaking) cultures is a symptom of misunderstandings (Ennis 1998) and even ignorance of and condescension towards non-Westerners' capacities for

rational thinking (Nussbaum 1997). Hammersley-Fletcher and Hanley point out that critical thinking may become ironically uncritical if it finds itself a mechanism for "reproducing the interests of particular groups and constraining thought within the boundaries of Western traditions" (2016, p. 990).

Consequently, stereotyping Asian students as uncritical is "an act of Othering that fails to recognize the cultural and social diversity of such a large group of people" (Rear, 2017). The lack of cultivating and practicing critical thinking in Chinese education is not necessarily a cultural or philosophical disinclination towards critical thinking (Bali, 2015; Tian and Low, 2011), but may be connected to other factors that have already been discussed. Plus, much of the proclaimed paucity of critical thinking amongst international Asian students can be explained by the fact that they are carrying out their studies in a foreign language, which has been shown to have a significantly negative impact on academic performance (Rear, 2017). The cognitive loaded theory may have some effects on international students' performance in CT scoring or some scientific courses taken not in their first language. It is inappropriate to label societies as critical or noncritical, particularly in academia.

This paper would refer to CT as critical intelligence. The level of critical intelligence differs from one individual to another and from one culture to another owing to a number of factors already discussed (e.g., individual, economic, cultural, institutional, etc.). Socrates' questioning, or CT, is a linguistic phenomenon; any language with a question structure enables its people to activate this intelligence and master it through practice. Languages are also provided with contrast, deduction, etc. words that make CT learnable across languages. This is not only practiced orally but can also be mastered through writing by providing the necessary writing tools and mechanisms, with the potential to guide students to produce a highly critical essay or paper. The properties and characteristics that languages enjoy certainly shape the critical style of their people, which needs further study. Thus, humans across cultures, even oral cultures, are provided with the apparatus to learn and develop CT.

Still, cultural practices may influence CT style. For example, Asians and Japanese lower their voices when they ask questions, which is not the case in other western countries. This habit is a social cultural practice that makes CT seem soft or 'inclusive because it activates critical and emotional intelligence at the same time, unlike westerners who raise their voice and gaze while communicating, which shapes the hard version of CT or the egocentric model that bears only critical intelligence and is free from what Paul (1992) called the strong sense of CT, which is the relational dimension. As a result, there are two types of CR, or maybe more, but there is no right or wrong type of C; one is shaped by egocentrism (individualism), and the other is shaped by inclusiveness (collectivism).

One major gap in the literature is the lack of scholarly attention to the pedagogy as a major promoter of CT in non-western society's classrooms. There is a scholarly shortage concerning creative ways particularly for teachers to enhance CT in classes with respect to the local culture. I do not think that the think-pair-share strategy or more learner-to-learner interaction would be perceived as an anti-regime act in countries that are labeled as dictators by the western world. CT can be acquired if the classroom embraces a learner-centered approach (Qasserras & Qasserras, 2023) allowing for this element to emerge and be practiced among students. Shifting to a more interactive approach can help students' develop CT strategies, even if they belong to cultures where questioning authorities might be challenging.

Remember, critical pedagogy (Frere, 1970) has been developed to liberate the learner giving them a critical voice and choice, especially in school. Also, we should not forget that US educational institutions were slow to endorse critical thinking in the classroom because of the wild normalization of behaviorism-based teaching (Bevis & Watson, 1989; Pond, Bradshaw, & Turner, 1991). Hence, classrooms in the US were not active until new pedagogies were adopted, providing students with space to question and interact more freely. Pedagogy can provide a second chance for societies where CT is not activated inspiring a learning of cultivation rather than learning of adaptation. If the teacher's intellectual authority is unquestionable, peer-to-peer learning can help at least question colleagues' knowledge and foster CT learning among learners. CT teaching is not all meant to evaluate teacher's knowledge or to question the state's ideology, but the most important is to understand the process and ethics of evaluating information before upholding it.

Rejecting the incorporation of CT in EFL because students of English from non-western countries are not culturally prepared to interact with higher-order skills or they come from cultures that value memorization over rationality and obedience over questioning must be questioned and revisited. This claim is dangerous, rooted in cultural biases and ethnocentrism and full of fallacies. There is an urgent need to redefine CT otherwise intellectual pirates would keep interpreting history and knowledge through their singled eyed understanding.

Assuming CT is a cultural value, and then what makes critical thinking taboo in the EFL classroom? Cultural competence is vital for EFL students, particularly those thinking about pursuing their high education at western universities. Cultural competence helps international students quickly engage in the host society, with positive outcomes for their academic

achievement. The hypothesis that critical thinking is culture-specific or western guise is no less than a thinking, cultural, and pedagogy fatigue. The westernization of CT is an oxymoron that needs to be healed through a higher form of CT, which is critical dialogue.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest.

References

- [1] Atkinson, D. (1997). A critical approach to critical thinking in TESOL. *TESOL Quarterly*, 31(1), 71- 94.
- [2] Al-Suleiman, N. (2009). Cross-cultural studies and creative thinking abilities. *Umm Al-Qura University Journal of Educational & Psychologic Sciences*, 1(1), 1-41.
- [3] Bali, M. (2015). Critical thinking through a multicultural lens: Cultural challenges of teaching critical thinking. In *The Palgrave handbook of critical thinking in higher education* (pp. 317-334). New York: Palgrave Macmillan US.
- [4] Bailin, S., & Siegel, H. (2003). Critical thinking. *The Blackwell guide to the philosophy of education*, 181, 193.
- [5] Barnouw, V. (1985). Culture and personality.
- [6] Bevis, E. O., & Watson, J. (1989). Toward a caring curriculum: A new pedagogy for nursing.
- [7] Biggs, J. (1996). Western misconception of the Confucian-heritage learning culture. In D. Watkins & J. Biggs (Eds.), *The Chinese learner: Culture, psychological, and contextual influences* (pp.45-67).
- [8] Carson, J. G., & Nelson, G. L. (1996). Chinese students' perceptions of ESL peer response group interaction. *Journal of second language writing*, 5(1), 1-19. [https://doi.org/10.1016/S1060-3743\(96\)90012-0](https://doi.org/10.1016/S1060-3743(96)90012-0)
- [9] Chaisuwan, C. (2020). *The Influence of Cultural Values on Critical Thinking Dispositions among Bacculaureate Nursing Students: A Comparative Analysis between Thailand and the United States*. Sage Graduate School.
- [10] Choi, I., Nisbett, R. E., & Norenzayan, A. (1999). Causal attribution across cultures: Variation and universality. *Psychological bulletin*, 125(1), 47.
- [11] Coleman, H. (1996). *Society and the language classroom*. Cambridge University Press.
- [12] Dewey, J. (1933). *How we think*. Boston: Heath.
- [13] De Oliveira, S., & Nisbett, R. E. (2017). Culture changes how we think about thinking: From “Human Inference” to “Geography of Thought”. *Perspectives on Psychological Science*, 12(5), 782-790.
- [14] Duncan, D. W., Haas, R., & Ricketts, J. C. (2016). Comparing critical thinking dispositions of students enrolled in a college level global seminar course. *Journal of International Agricultural and Extension Education*, 23(2), 38-49. <https://doi.org/10.5191/jiaee.2016.23203>
- [15] Durkin, K. (2008). The adaptation of East Asian masters students to western norms of critical thinking and argumentation in the UK. *Intercultural Education*, 19(1), 15-27. <https://doi.org/10.1080/14675980701852228>
- [16] Facione, P. (1990). *Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction (The Delphi Report)*.
- [17] Fox, H. (1994). *Listening to the world*. Urbana, IL: National Council of Teachers of Thinking Critically about Critical Thinking in TESOL: East vs. West
- [18] Freire, P. (1970). *Pedagogy of the oppressed* (MB Ramos, Trans.). New York: Continuum, 2007.
- [19] Ennis, R. H. (1990). The extent to which critical thinking is subject-specific: Further clarification. *Educational Researcher*, 19(4), 13–16.
- [20] Ennis, R. H., & Millman, J. (1985). *The Cornell critical thinking test-level Z* (3rd ed.). Pacific Grove, CA: Midwest Publications.
- [21] Floyd, C. (2011). Critical thinking in a second language. *Higher Education Research and Development*, 30, 289-302. <https://doi.org/10.1080/07294360.2010.501076>
- [22] Ericsson, K. A., & Hastie, R. (1994). Contemporary approaches to the study of thinking and problem solving. In *Thinking and problem solving* (pp. 37-79). Academic Press.

- [24] Halpern, D. F. (2014). *Critical thinking across the curriculum: a brief edition of thought & knowledge*. Routledge.
- [25] Hammersley-Fletcher, L., & Hanley, C. (2016). The use of critical thinking in higher education in relation to the international student: Shifting policy and practice. *British Educational Research Journal*, 42(6), 978-992.
- [26] Hamp-Lyons, L. (1991). *Assessing second language writing in academic contexts*. Ablex Publishing Corporation.
- [27] Harklau, L. (1994). ESL versus mainstream classes: Contrasting L2 learning environments. *TESOL Quarterly*, 28, 241-272. <https://doi.org/10.2307/3587433>
- [29] Hernandez, J. (2016). Study finds Chinese students excel at critical thinking. Until college. *New York Times*, 30 July. Retrieved from <https://www.nytimes.com/2016/07/31/world/asia/china-collegeeducation-quality.html?mcubz=3>
- [30] Hofstede, G. (1980). *Culture's consequences*. Sage. Hofstede, G. (1984). *Culture's consequences: International differences in work-related values*. Sage.
- [31] Hofstede, G. (1990). *Cultures and organizations: software of the mind*. McGraw Hill.
- [32] Hofstede, G. (2001). *Culture's consequences: comparing values, behaviors, institutions, and organizations across nations*. Sage.
- [33] Hofstede, G., & Bond, M. H. (1988). The Confucius connection: from cultural roots to economic growth. *Organizational dynamics*, 16(4), 5-21.
- [34] Holmes, P. (2008). Foregrounding harmony: Chinese international students' voices in communication with their New Zealand peers. *China Media Research*, 4(4), 102-110.
- [36] Ip, W. Y., Lee, D. T., Lee, I. F., Chau, J. P., Wootton, Y. S., & Chang, A. M. (2000). Disposition towards critical thinking: a study of Chinese undergraduate nursing students. *Journal of Advanced Nursing*, 32(1), 84-90.
- [37] Johnson, R. H., & Hamby, B. (2015). A meta-level approach to the problem of defining 'Critical Thinking'. *Argumentation*, 29, 417-430.
- [38] Kim, H. S. (2002). We talk, therefore we think? A cultural analysis of the effect of talking on thinking. *Journal of Personality and Social Psychology*, 83, 828-842. <https://doi.org/10.1037//0022-3514.83.4.828>
- [39] Lamm, A. J. (2015a). Integrating critical thinking into extension programming #1: critical thinking defined. Florida Cooperative Extension Service Electronic Data Information Source AEC544. <https://edis.ifas.ufl.edu/pdffiles/WC/WC20600.pdf>
- [40] Lamm, A. J. (2015b). Integrating critical thinking into extension programming #4: measuring critical thinking styles using the UFCTI. Florida Cooperative Extension Service Electronic Data Information Source AEC547. <https://edis.ifas.ufl.edu/pdffiles/WC/WC20900.pdf>
- [41] Lamm, A. J., & Irani, T. (2011). *UFCTI manual*. Gainesville: University of Florida. Leal, A., Rumble, J. N., & Lamm, A. J. (2017). Using critical thinking styles to inform food safety behaviour communication campaigns. *Journal of Applied Communications*, 101(2), 19-32.
- [42] Li, J. (2012). *Cultural foundations of learning: East and West*. Cambridge University Press.
- [43] Lun, V. M. C., Fischer, R., & Ward, C. (2010). Exploring cultural differences in critical thinking: Is it about my thinking style or the language I speak? *Learning and Individual Differences*, 20(6), 604-616. <https://doi.org/10.1016/j.lindif.2010.07.001>
- [44] Maxcy, S. J. (1985) The democratic 'myth' and the search for a rational concept of education, *Educational Philosophy and Theory*, 17(1), 22–37.
- [46] Mayer, R., & Goodchild, F. (1990). *The Critical Thinker*, Wm. C. Brown. New York.
- [47] McBride, R. E., Xiang, P., Wittenburg, D., & Shen, J. (2002). An analysis of preservice teachers' dispositions toward critical thinking: A cross-cultural perspective. *Asia-Pacific Journal of Teacher Education*, 30(2), 131-140. <https://doi.org/10.1080/13598660220135649>
- [48] McPeck, J. E. (1990). Critical thinking and subject specificity: A reply to Ennis. *Educational researcher*, 19(4), 10-12.
- [49] Mahapoonyanont, N. (2010). Factors related to critical thinking abilities; a meta-analysis. *Procedia-Social and Behavioral Sciences*, 9, 986-990.
- [50] Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98(2), 224-253. <https://doi.org/10.1037/0033295X.98.2.224>

- [51] Matilal, Bimal Krishna. 1990. *Logic, Language and Reality: Indian Philosophy and Contemporary Issues*. Delhi: Motilal Banarsidass.
- [52] Moore, T. (2013). Critical thinking: Seven definitions in search of a concept. *Studies in Higher Education*, 38(4), 506-522.
- [53] Mote, F. W. (2003). *Imperial China 900-1800*. Harvard University Press.
- [54] Nisbett, R. E., & Masuda, T. (2003). Culture and point of view. *Proceedings of the National Academy of Sciences*, 100(19), 11163-11170.
- [55] Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: holistic versus analytic cognition. *Psychological review*, 108(2), 291.
- [56] Norris, S. P. (1989). Can we test validly for critical thinking?. *Educational researcher*, 18(9), 21-26.
- [57] Norris, S. P. (1995) Sustaining and responding to charges of bias in critical thinking, *Educational Theory*, 45(2), 199-211.
- [58] OECD (2014). *PISA 2012 results: Creative problem solving (Vol. 5). Students' skills in tackling real-life problems*.
- [59] OECD Publishing. <http://dx.doi.org/10.1787/9789264208070-en>. Retrieved from
- [60] <https://www.oecd.org/pisa/keyfindings/PISA-2012-results-volume-V.pdf>
- [61] Olaussen, B. S., & Bråten, I. (1999). Students' use of strategies for self-regulated learning: Cross-cultural perspectives. *Scandinavian Journal of Educational Research*, 43(4), 409-432. <https://doi.org/10.1080/0031383990430405>
- [62] Outo, T. (2006). *Factors effecting improvement of critical thinking skills of students, Faculty of Nursing, Mahidol University (Unpublished master's thesis)*. Kasetsart University, Thailand.
- [63] Paton, M. (2011). Asian students, critical thinking and English as an academic lingua franca. *Analytic Teaching and Philosophical Praxis*, 32(1), 27-39.
- [64] Paton, M. (2004). Is critical analysis foreign to Chinese students? In E. Manalo, & G. Wong-Toi (Eds.), *Communication skills in university education: The international dimension* (pp. 1–12). Auckland: Pearson Education.
- [65] Paul, R. (1981) Teaching critical thinking in the 'strong sense': a focus on self-deception,
- [66] world views, and a dialectical mode of analysis, *Informal Logic*, 4(2), 2-7.
- [67] Paul, R., & Nosich, G. M. (1992). *A Model for the National Assessment of Higher Order Thinking*.
- [68] Peng, K., & Nisbett, R. E. (1999). Culture, dialectics, and reasoning about contradiction. *American psychologist*, 54(9), 741.
- [69] Petchoo, K., & Vanitsupavong, P. (2013). Causal relationship of educational management factors influencing critical thinking of nursing students, nursing college under the jurisdiction of Ministry of Public Health. *Journal of Nursing and Education*, 6(2), 42-55.
- [70] Pond, E. F., Bradshaw, M. J., & Turner, S. L. (1991). Teaching strategies for critical thinking. *Nurse Educator*, 16(6), 18-22.
- [71] Purvis, C. A. (2009). *Factors that influence the development of critical thinking skills in associate degree nursing students (Doctoral dissertation, University of Georgia)*.
- [72] Qasserras, M., & Qasserras, L. (2023). Teacher Trainers' Readiness and Perceptions of Critical Thinking Instructional Practices in Morocco. *European Modern Studies Journal*, 7(2). [https://doi.org/DOI:10.59573/emsj.7\(2\).2023.08](https://doi.org/DOI:10.59573/emsj.7(2).2023.08)
- [73] Ramanathan, V., & Kaplan, R. B. (1996a). Some problematic "channels" in the teaching of critical thinking in current L1 composition textbooks: Implications for L2 student-writers. *Issues in Applied Linguistics*, 7(2), 225-249.
- [74] Ramanathan, V., & Kaplan, R. B. (1996b). Audience and voice in current L1 composition texts: Some implications for ESL student writers. *Journal of*
- [75] *Second Language Writing*, 5(1), 21-34.
- [76] Rear, D. (2017). The language deficit: a comparison of the critical thinking skills of Asian students in first and second language contexts. *Asian-Pacific Journal of Second and Foreign Language Education*, 2, 1-15.

- [77] Ronan, Colin A. 1978. *The Shorter Science and Civilization in China: An Abridgement of Needham's Original Text*. Cambridge: Cambridge UP.
- [78] Salsali, M., Tajvidi, M., & Ghiyasvandian, S. (2013). Critical thinking dispositions of nursing students in Asian and non-Asian countries: A literature review. *Global Journal of Health Science*, 5(6), 172-178. <https://doi.org/10.5539/gjhs.v5n6p172>
- [79] Schumann, A. (2021). On the Origin of Logical Determinism in Babylonia. *Logica Universalis*, 15(3), 331-357.
- [80] Segall, M. H. (1986). Culture and behavior: Psychology in global perspective. *Annual Review of Psychology*, 37(1), 523-564.
- [81] Siegel, H. (1988) *Educating reason: rationality, critical thinking and education* (New York, Routledge).
- [82] Siegel, H. (2007) *The reasons conception*, in: R. Curren (Ed), *Philosophy of education: An anthology* (Malden, Blackwell Publishing).
- [83] Scott, J., & Markert, R. (1994). Relationship between critical thinking skills and success in pre-clinical courses. *Academic Medicine*, 69, 920-924. <https://doi.org/10.1097/00001888-199411000-00015>
- [84] Siller, T. (2001). Sustainability and critical thinking in civil engineering curriculum. *Journal of Professional Issues in Engineering Education and Practice*, 127(3), 104-108. [https://doi.org/10.1061/\(asce\)1052-3928\(2001\)127:3\(104\)](https://doi.org/10.1061/(asce)1052-3928(2001)127:3(104))
- [85] Smeyers, P., & Marshall, J. D. (Eds.). (1995). *Philosophy and Education:: Accepting Wittgenstein's Challenge* (Vol. 6). Springer.
- [86] Stapleton, P. (2001). Assessing critical thinking in the writing of Japanese university students: Insights about assumptions about content familiarity. *Written Communication*, 18(4), 506-548.
- [87] Sternberg, R.J. (2003). What Is an "Expert Student? *Educational Researcher*, 32 (8), 5–9.
- [88] Tan, C. (2017). Teaching critical thinking: Cultural challenges and strategies in Singapore. *British Educational Research Journal*, 43(5), 988-1002. <https://doi.org/10.1002/berj.3295>
- [89] Tafarodi, R. W., & Swann Jr, W. B. (1996). Individualism-collectivism and global self-esteem: Evidence for a cultural trade-off. *Journal of Cross-Cultural Psychology*, 27(6), 651-672. <https://doi.org/10.1177/0022022196276001>
- [90] Ten Dam, G., & Volman, M. (2004). Critical thinking as a citizenship competence: teaching strategies. *Learning and instruction*, 14(4), 359-379.
- [91] Tian, J., & Low, G. D. (2011). Critical thinking and Chinese university students: A review of the evidence. *Language, Culture and Curriculum*, 24(1), 61-76.
- [92] Tiwari, A., Avery, A., & Lai, P. (2003). Critical thinking disposition of Hong Kong Chinese and Australian nursing students. *Journal of Advanced Nursing*, 44(3), 298-307. <https://doi.org/10.1046/j.1365-2648.2003.02805.x>
- [93] Triandis, H. C. (1994). Theoretical and methodological approaches to the study of collectivism and individualism. *Cross Cultural Research and Methodology Series-Sage-*, 18(1), 41-41.
- [94] Torrance, E. P. (1966). *The Torrance Tests of Creative Thinking-Norms-Technical Manual Research Edition-Verbal Tests, Forms A and B Figural Tests, Forms A and B*. Princeton, NJ: Personnel Press.
- [95] Torrance, E. P. (1974). *Torrance Tests of Creativity Thinking: Norms-Technical Manual*. Lexington, MA: Ginn.
- [96] Torrance, E. P. (1988). "The nature of creativity as manifest in its testing" in *The Nature of Creativity*. ed. R. J. Sternberg (New York: Cambridge University Press), 43–73.
- [97] Tscherbatsky, F. Th. (1962). *Buddhist Logic*. New York: Dover
- [98] Wan, G. (2001). The learning experience of Chinese students in American universities: A crosscultural perspective. *College Student Journal*, 35(1), 28–44.
- [99] Wang, P., & Machado, C. (2015). Meeting the needs of Chinese English language learners at writing centers in America: A proposed culturally responsive model. *Journal of International Students*, 5(2), 143-160.
- [100] Zhou, Z. (2018). A study on the cultivation of critical thinking ability of English majors. *Theory and Practice in Language Studies*, 8(3), 349-353. <http://dx.doi.org/10.17507/tpls.0803.1>