## Book Review: The Palgrave Handbook of Critical Thinking in Higher Education, edited by Martin Davies and Ronald Barnett, USA: Palgrave Macmillan

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"If there was one life skill everyone on the planet needed, it was the ability to think with critical objectivity" (Lanyon 2011). There is little doubt Martin Davies and Ronald Barnett (2015) would agree with this pronouncement if The Palgrave Handbook of Critical Thinking in Higher Education were a fair indication because Davies and Barnett specifically compiled the chapters in this book in order to share their wide-ranging knowledge and insight into contemporary understandings about and applications of critical thinking (CT) in higher education. They believe this volume is a much needed text centred in the evolving world of higher education as CT is an extremely highly valued graduate outcome that pervades curricula.

Keywords: critical thinking; higher education

Davies and Barnett have contributed to and edited this impressive volume, which urgently deserves serious attention from academics, educationalists, employers, students and citizens internationally; the content of this book reignites the significant and contested area surrounding critical thinking (CT). This is especially pertinent given the current and digitally energized global context of higher education, which has become a mass enterprise, wherein there "appears something of a paradox … Industry wants more critical thinking, but increasingly – at least in some countries – universities have little interest in providing it, even if they continue to proclaim its value" (Davies and Barnett 2015: 4).

The Palgrave handbook does more, however, than only explore CT; it also examines "the nature of critical thinking within, and its application and relevance to, higher education" (p. 2). In the Introduction the origins of CT, whose roots encompass Marxism, phenomenology, psychoanalysis and Freire in the 1970s, are revisited. Given this long and pertinent history, it is not surprising that CT now pervades rubrics designed for a range of assignments in universities, whether these assessments are formatted as essays, tests, reflections, reviews, reports or discussions. Furthermore, CT is expected in some form across all disciplines. In today's world, knowledge is not simply imparted by way of lectures whose content is to be memorised, but shared with an explicit expectation that learners will question basic principles and assumptions, as well as test how accepted theories and/or laws might apply in a rapidly changing world due to emerging digital technologies and their effect on the role of university education.

The idea of an individual and socio-cultural model for CT, which incorporates all perspectives and approaches, is then proposed: a model in which CT is viewed as a composite of thinking, being-inthe world and action (p. 16). To this end, a comprehensive handbook has been systematically composed, resulting in an up-to-date and a coherent collection of incisive writings, which expound on a diverse range of philosophical as well as practical viewpoints on CT. This compendium offers a broad platform from which researchers and teachers can further their dialogue about and approach to CT, alongside ongoing efforts to embed it across all disciplines in higher education.

My only sense of disquiet is due to needing to find the relevant section (since the volume is divided into Parts I-VII with a minimum of four chapters or papers in each) before being able to read a complete chapter discussing alternative cultural perspectives on CT. Although the importance of cultural differences was foreshadowed and stressed in the Introduction, a detailed article about these other perspectives could also have been included in the first and defining part of the book. So, in spite of this volume succeeding in its stated aims to provide key contributions from a wide selection of internationally relevant scholars, a range of approaches to critical pedagogy across disciplines in higher education and an informed basis for further research, a slight reorganisation of the chapters allocated to the first part would have strengthened the book's argument and, in this way, helped avoid any accusations that the global relevance of CT had been marginalised. Since "What Is Critical Thinking in Higher Education?" is the title of Part I, the chapters included herein could ideally form an extended and provocative academic definition response and hence, from an early stage, at least include concerns raised by non-Western cultural perspectives. As mentioned, the handbook groups its chapters, each one a model of applied critical thinking, into several distinct sections: definitions of CT from its origins; approaches to teaching CT; ways of incorporating CT in a curriculum; the relationship of CT to culture, the cognitive sciences and professions; as well as various social perspectives on CT. Each part contains a coherent sequence, even if chapters may express contradictory views: some authors argue for an embedded and discipline specific approach, while others are satisfied by a more generic methodology.

Irrespective of an author's stance, when taking the totality of views and arguments offered into account, a wide variety of perspectives on and practices in CT across are advanced. Thus, when reflecting on this volume as a whole, I believe it also achieves its other aims: to stimulate ongoing academic interest and discussion regarding the nature, value and pedagogy of CT, how it is of global concern and, most importantly, its fundamental relevance to higher educationalists worldwide.

Alternative perspectives on and defining CT are presented in the first four chapters, in response to the question, "What is Critical Thinking?" These various approaches even use different terms, ranging from "critique" to "critical pedagogy" and "criticality". First, Ennis, one of the founding fathers of CT, has refined his idea CT into a concept that encompasses twelve dispositions and eighteen abilities. Ennis maintains each of these is distinct and demonstrates his finely honed philosophical take via an engaging narrative about a defendant charged with murder and how his jurors, as they proceed to consider every aspect of the defendant's case fairly, display aspects of the ability to think critically to differing degrees. In a more educationally focused vein, Andrews emphasises how we can use argumentation to foster CT, whether in generic or discipline–specific courses. On the other hand, rather than conceiving CT to be a disposition or skill, Barnett looks at it as a way of being, while Hamby cuts to the essence of CT by arguing that its full realization, "criticality", is equal to the sum of three domains: thought, action and being.

While I wholeheartedly support Davies' and Barnett's aspiration to demonstrate CT is essential to higher education globally, across cultures and all disciplines, I repeat it is disappointing this crucial assertion is given attention in the Introduction but not again until Part IV. This is regrettable because the global relevance of CT could have been demonstrated more convincingly if at least one chapter discussing CT from a non-Western perspective had been situated within this first part of the text; that is, a chapter from Part IV, "Critical Thinking and Culture" could be shifted into Part I, "What is Critical Thinking?" Such a reorganisation is warranted since Western academics in the Humanities authored all the chapters in the first part. Hence, primarily at least, the way in which CT is defined, argued about and taught is seen almost exclusively through a Western socio-cultural academic lens. This unfortunate ethnocentric perspective, conveyed via the volume's organization of chapters, needs to be noted.

To avoid similar critcisms, or even accusations, of marginalising diverse cultural concerns, chapters addressing CT from a more universal perspective could not only have been positioned much earlier on (that is, in Part I) without entailing that the basic and clear structure of the text would be jeopardised. Even though the book's division into seven parts allows for a clearly organised reading experience, to avoid accusations of marginalising diverse cultural concerns, chapters addressing CT from a more universal perspective could have been positioned much earlier on – and without jeopardising the basic structure of the text. Moreover, sequencing chapters under headings whose wording suggests that CT can be considered as separate from other topics such as culture, "Critical Thinking and …" [my italics], is not the most persuasive rhetorical device even if it is, as a purely structural technique, a useful one.

Part II contains seven chapters relating to "Teaching Critical Thinking". Precisely how CT can balance both its cross-disciplinary aspects with specific disciplinary concerns seems to depend on the pedagogue. Thomas and Lok propose an operational framework, which conceptualizes CT as three interconnected composite attributes: disposition, skills and knowledge, together forming a means for developing capacities for critical self-reflection. However, Green stresses CT as a means by which we can encourage lifelong learning. Without denying that CT entails lifelong practice, Llano adopts an extremely explicit method for teaching CT via debate in order to inspire students to appreciate CT as a culture rather than a set of skills. However, Wendland, Robinson, and Williams go beyond the traditional debating methodology and recommend, thick critical thinking (p. 90), an approach which is still in its infancy, but possibly suggests a means by which the viewpoints of others can start to be appreciated as highly nuanced as one's own. Jones uses empirical studies to argue that although general attributes of CT may exist, these will manifest themselves differently depending on the discipline. She argues for interdisciplinary study to enable metacritique, while Bailin and Battersby advocate teaching CT via inquiry in order to highlight common aspects of investigation across disciplines. Van Gelder identifies the difficulty inherent in effectively teaching CT and outlines how Argument Mapping could prove to be an effective methodology. Common to all these approaches, though, is inclusion of teaching and learning about how to tolerate multiplicity as well as complexity; this dual tolerance could well be of the utmost value to cultivate, but it is also extremely challenging as regards implementation of CT in higher education.

Part II considers teaching CT and then progresses logically to Part III, "Incorporating Critical Thinking in the Curriculum". This part contains six chapters, starting with Vardi's consideration of how to nurture students' desires to become critical thinkers over and above preparing for the profession to which they are aspiring, and then concluding with Hitchcock's summary of effective instruction for CT. Harrell and Wetzel also argue for incorporating CT as part of a first-year writing course by using argument mapping, while Hammer and Griffith look at how reconfiguring writing; that is, essay writing, can provide an effective strategy for developing CT. Kingsbury and Bowell investigate the transfer gap, whereas Brodin stresses the significance of the conditions necessary for fostering criticality, or a wider form of CT, in doctoral education. As a result, we can best understand curricula as constituting a crucial framework for shaping students' and graduates' criticality as a lifelong endeavour.

The first chapter in Part IV, "Do Students from Different Cultures Think Differently about Critical and Other Thinking Skills?" by Manalo et al., identifies "important similarities in views about what 'good

thinkers' possess" and it also mentions many qualities associated with critical thinking "such as consideration of different or alternative perspectives" (p. 299). Nevertheless, according to this case study, it appears that the term, "critical thinking", is an ambiguous, culturally loaded and, most often, misunderstood theory and especially so when considered through non-Western lenses. In short, this chapter effectively defines CT as a confusing concept when viewed by some individuals and so, it would have been ideal to include very early on in the book. Bali then addresses the cultural challenges of teaching CT. The next chapter, "Cultural Variance, Critical Thinking, and Indigenous Knowledges: Exploring a Both-Ways Approach" by Sharon K. Chirgwin and Henk Huijser is another fascinating account indicating this section could be retitled as something more inclusive, such as "Cultural Perspectives on Critical Thinking". Particularly relevant here is the idea that a "both-ways" approach can create a new space for understanding and knowledge, an important meta-critical assessment and therefore, a chapter suited to its placement within a separate section as it ventures beyond defining the tradition to critiquing it. There are, however, only four chapters in Part IV, ending with Dong's highly relevant "Critical Thinking Education with Chinese Characteristics", which argues the restrictive nature of the environment in China means the road to CT will take time. I strongly agree with the statement that "Critical thinking and culture is a vital topic, hence its importance to this volume" (p. 297), and therefore, I would have liked to have been able to read more chapters specifically related to this topic, especially since the chapters included here do indicate that traditional views of other cultures (as bereft of criticality) may well be a misguided assumption.

The next part, "Critical thinking and the Cognitive Sciences" is another relatively small section with only three chapters unambiguously addressing the vital concept of "thinking about thinking" (Lau, p. 373). Lau convincingly argues for CT being reconceptualised in a wider educational program aimed at expanding on metacognition. Lodge et al. then address the generalist-specifist debate surrounding the teaching of CT, recommending how we might use research and knowledge from the cognitive sciences to inform best teaching practices. These practices could then enable students to identify the "mental shortcuts" they may unwittingly adopt when approaching a problem, while students could simultaneously uncover inherent biases in their own thinking as well as in the body of knowledge they are studying. Ellerton authored the final chapter in this part, taking as given that CT is a universally desirable educational outcome while positing the elusive metaphor that "It has become the Cheshire Cat of curricula, in that it seems to be in all places, owned by all disciplines, but it does not appear, fully developed, in any of these". In order to address this dilemma, Ellerton proposes a metacognitive evaluative model, which not only incorporates metacognition, but also suggests useful pedagogical principles by which it can be applied in most disciplines. If we assume that CT is a universally desirable attribute, probably we must also accept Ellerton's assertion that metacognition is an integral part of it to include in any CT curriculum. We cannot truly practise CT without thinking about how differently it is practised and articulating the various ways in which it implies and applies.

Five chapters constitute the sixth part, "Critical Thinking and the Professions", which draws attention to the value of thinking critically extending beyond academia: CT is identified as a key skill desired by employers in the US, probably because of the preparation it provides for creating and adjusting to

change. The five chapters contained in this section first cover CT in the professions of Accountancy, where findings from qualitative surveys are used to show how CT can be viewed as a type of purposeful and problematic way of doing; Science, where Trede and McEwen argue that "CT in universities [needs to go] beyond academic reasoning to questioning the very roots of reasoning"; and Osteopathic Medicine, where clinical practice demands that the practitioner be able to challenge traditional paradigms, while tolerating uncertainty, unpredictability and complexity. Wilson et al. then comment on the dynamic practice of CT in Scientific Research and how the role of CT can provide a basis for professional practice in a variety of related areas. Their investigation suggests a wealth of means by which we can actively encourage and strengthen students' ability to think critically and creatively while they learn how to view Science as more than procedural; for example, by directing students' attention towards different objects at multiple levels and also by challenging students to reflect on and choose between alternative techniques or differing interpretations. Finally, Nancy November draws on relevant case studies that reveal how social media may be utilised to enhance CT in artistic industries, such as music and creative writing. November maintains educators can exploit students' digital literacy skills and behaviours to encourage "modes of thought that are associated with critical thinking" (p. 510); that is, for synthesising knowledge, engaging in knowledgeextending collaborations and for moving outside their own unexamined opinions.

The seventh and final part, "Social Perspectives on Critical Thinking", fittingly positions CT so we can view it from an informed, a far-reaching and relatively distanced angle. Brookfield's approach notes the way in which we conceptualise CT will impact on the way we teach it. Hence, although the analytical, logical and philosophical tradition may be the most common in the English-speaking world, Brookfield proposes moving towards a more pragmatic approach aligned to the Frankfurt School of critical theory. Constandius et al., working within the South African context with its legacy of Apartheid, also relate CT to political power, tying it to how we can best understand and discuss critical citizenship.

A particular inspiration for me as an educator working in the field of Communication was reading Cowden and Singh's invocation to consider CT as a social practice. Viewing CT as such almost necessarily leads on to examining, considering and adopting the educational approach they term critical pedagogy, "in the context of the current reshaping of relationships between students and teachers in a neoliberal market model". Cowden and Singh make an impassioned plea for revisiting Freire's work as offering a dialogic and an ethical "framework for defending and expanding essential aspects of critical thinking" (p. 561) they assert are universal. Szenes, Tilakaratna and Maton draw on the sociological framework of "Legitimatisation Code Theory" (LCT) to address what constitutes the knowledge practice of CT, focusing on "semantic gravity, [a term that refers to] the context dependence of meaning" (p. 573). As the fitting concluding chapter in the book, Volman and ten Dam explore the teaching of CT as a citizenship competence in higher education, which entails being involved in meaningful social practices, actively and communally. Despite minor suggestions for how a more culturally inclusive arrangement could have been achieved, this valuable handbook, edited by Davies and Barnett, addresses significant concerns regarding the nature, relevance and current practice of teaching CT within the context of tertiary education across our planet. Strategic researchers and writers argue for the importance of logical and incisive thinking, providing classroom approaches and evidence in a cumulative effort that demonstrates the value of integrating CT into all disciplines across the curriculum. The outcome is a diverse range of methods for educators to consider when deciding if, and then how best, to incorporate CT within their specific disciplines. As such, this volume provides an informed, current and extensive basis to inspire further research and debate, with the chapters positioned in Part IV and relating to culture, the most significant. If CT is indeed a universally recognized and highly valued graduate attribute, then we need to distinguish how it is differently realized across and within cultures, professions and disciplines.

CT has long been advocated and acknowledged as a vital ethical value, as well as a worthwhile skill and disposition that graduates will hone during their studies and then carry on into their professional and personal lives; this book acknowledges the distance we have travelled towards achieving this, simultaneously indicating how far we have yet to go, and commending a range of possible ways forward.

## REFERENCES

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