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Tilakaratna, Namala ORCID logoORCID: <https://orcid.org/0000-0002-3071-6806>, Brooke, Mark ORCID logoORCID: <https://orcid.org/0000-0002-3071-6806> and Monbec, Laetitia (2019) Reflective Writing Across The Disciplines: Challenging Western Critical Thinking Models In The Asian Context. Asian Journal of the Scholarship of Teaching and Learning, 9 (2). pp. 119-141.

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Reflective Writing Across The Disciplines: Challenging Western Critical Thinking Models In The Asian Context

ABSTRACT

Although critical thinking (CT) skills are widely acknowledged as an important outcome of student learning in higher education, what represents these skills in the Asian context is little known. In this study, we analysed a selected corpus of high-scoring (A to A+) critical reflection (CR) assignments chosen as exemplary models of reflective writing in their respective disciplines by subject lecturers (Engineering, English for Academic Purposes, and Public Writing and Communication) at a leading tertiary institution in Asia. We ask the following question: what discursive practices are deployed in reflective writing by students in an Asian context when demonstrating their capacity to critically reflect on and learn from past experiences? The question was explored using two frameworks: Systemic Functional Linguistics (SFL), specifically Appraisal, which allows us to account for how evaluative meaning is deployed by students in their assignments; and Legitimation Code Theory (LCT), specifically Specialisation, which accounts for what kinds of knowledge CR texts appear to value. From these analyses, we uncover what counts as evidence of CT. The findings indicate that students writing effective CR assignments construct themselves as legitimate knowers who demonstrate positive transformation of the self within the course which they show through their engagement with the curriculum content. The importance of a communitarian ideology and a more co-operative reflective practice in their texts, as the basis for incorporating external knowledge, is consistently present. This appears to differ from Western ideals of CT skills, which tend to champion individual autonomy and social independence.

Keywords: Appraisal, Asian context, Asian learners, critical reflection, critical thinking, Legitimation Code Theory, reflective writing, Systemic Functional Linguistics

INTRODUCTION

Critical thinking skills such as “purposeful, self-regulatory judgement” that emerges from “interpretation”, “analysis”, “evaluation” and “inference” (Facione, 1990, p. 2), are widely considered an important outcome of student learning in higher education. However, little is known about what constitutes effective critical thinking (hereafter, CT) in the Asian context. This is partly because CT has been investigated primarily in relation to Western contexts of practice (Ennis, 1998; Facione, 1990; Paul & Elder, 2014). These frameworks are often uncritically applied to Asian contexts to teach and assess CT skills (Ryan, 2016; Song, 2017; Tan, 2017b). For this article, we define ‘Asian contexts’ as the geographical location of the Asian continent as opposed to ‘Western contexts’ (predominantly referring to European and North American education research). Looker and Chng (2013) argue that the Asian context has been largely ignored in the scholarship of teaching and learning (SoTL), which is dominated by Western understandings of what constitute effective teaching and learning. We propose that the application of CT research in the Asian context highlights one of the challenges that emerge when Western understandings of teaching and learning are unquestioningly applied to Asian learners, revealing that these students have inadequate capacity to think critically (Atkinson, 1997; Ryan, 2010; Song, 2016; Song & McCarthy, 2018). We argue that this deficit model of Asian students’ CT skills can be attributed to two major factors. The first is that CT skills are often defined as ‘perceptions’ rather than as *practices* (Szenes, Tilakaratna & Maton, 2015, emphasis added), that is, CT is often explored in relation to what experts intuitively think or recognise as CT skills (Atkinson, 1997; Moore, 2011). For example, in Facione’s (1990) seminal study for the American Philosophical Association on CT skills, the education experts interviewed were asked to “identify the core elements of CT which might reasonably be expected at freshmen and sophomore general education college [levels]” (p. 4). This can be contrasted with studies that aim to uncover *evidence* of CT through the analysis of how CT is deployed by students in the classroom or in assessment through an analysis of discourse (Brooke, 2016; Kirk, 2017; Szenes, Tilakaratna, & Maton, 2015; Tilakaratna & Szenes, 2017; Tilakaratna & Szenes, forthcoming). This highlights the second factor that contributes to classifying Asian students as poor critical thinkers, namely the lack of satisfactory frameworks that make visible valued discursive practices that both provide evidence of CT and show how these practices are realised across a range of disciplinary and geographical contexts.

In order to show what kinds of valued CT skills have been deployed in student writing in the Asian context, we analysed a selected corpus of high-scoring student texts (A to A+) chosen by subject lecturers (Engineering, English for Academic Purposes and Public Writing and Communication) as exemplary models of reflective writing in their respective disciplines. These

assignments were designed to test students' ability to demonstrate the sub-skill of CT, critical reflection (CR), which shows how theory relates to professional practice by critically reflecting on past experiences (Fook, Collington, Ross, Ruch, & West, 2016). The first qualitative framework we draw on to address the existing research gap is Systemic Functional Linguistics (SFL), which explores language as a social semiotic and has been widely used in mapping genres and analysing academic discourse in higher education (Dreyfus, Humphrey, Mahboob, & Martin, 2016; Nesi & Gardner, 2012). Our second framework, Legitimation Code Theory (LCT), draws on social realist sociologists such as Bernstein (2000) and Bourdieu (1986) in exploring knowledge practices across institutions and disciplines (Maton, 2014)¹. Our interdisciplinary approach aims to make visible the valued discursive practices of CR in an Asian context.

In analysing student data using the SFL and LCT frameworks, we align with interdisciplinary SoTL research that emphasise “common teaching-learning problems across disciplines” (McKinney, 2012, p. 3) while taking into account the “deeply embedded cultural practices shared by teachers and students (and possibly invisible to them)” (Looker, 2011, p. 26). Our focus on the Asian context allows us to recognise “different contexts, perspectives and language, and how this affects the understanding of critical reflection and how it is researched”, which is highlighted as a future research concern by Fook *et al.* (2016). In order to address this concern, we ask the following question:

What discursive *practices* are deployed in reflective writing by students in an Asian context when demonstrating their capacity to critically reflect on and learn from past experiences?

The conclusions of our study are important for higher education teachers in Asia who use Western-oriented CT frameworks to guide their instruction and assessment, and find that these frameworks reductively classify Asian students as poor critical thinkers. We argue that if these models tend to present the Asian student as weak in broader CT skills, their use is problematic. We propose that this classification of Asian students as weak critical thinkers may partly be due to the tendency of Western models to view CT as universal skills (Song, 2016, p. 28) rather than viewing teaching and learning as “essentially situated” in particularly geographical locations and thus reflecting the cultural practices that are valued within those contexts (Looker & Chng, 2013, p. 139). Finally, we argue that a more applicable theoretical understanding of what *demonstrates* sound CT is needed in the Asian context and propose that the interdisciplinary approach drawing on SFL and LCT, as employed in this paper, can make the underlying knowledge practices and their function in a specific context more visible to teachers and their students.

AN OVERVIEW OF APPROACHES TO ANALYSING CRITICAL THINKING SKILLS IN ASIAN CONTEXTS

In the following literature review, we provide a broad overview of key research on approaches to analysing CT skills that have been used to investigate the CT capacity of Asian learners. We begin by focussing on literature that examines broader CT skills, highlighting studies which draw on Western frameworks for analysing CT skills in Asian students. We then discuss how deficit CT skills are tied to the Asian context and cultural practices, and introduce research that proposes examining cultural practices as *different* rather than as deficit.

Research on critical thinking (CT) skills of Asian learners

As mentioned in the section “Introduction”, research on student CT conducted in Asia by Western educationalists (Davidson, 1995) and research measuring Asian students’ CT abilities (Tiwari, Avery, & Lai, 2003; McBride, Xiang, Wittenburg, & Shen, 2002; Kim, 2003) have typically concluded that students from Asian countries are “poor critical thinkers” (Kim, 2003, p. 78) because they lack the ability to think independently. For example, a comparison of Asian and American students using the California Critical Thinking Disposition Inventory (CCTDI) developed by Facione and Facione (1992) revealed that Asian students scored poorly on the CT-Mature scale that targets the “disposition to be judicious in one’s decision making and requires *independence of thought*” (McBride *et al.*, 2002, p. 138, emphasis added). Similarly, findings from the Tiwari, Avery, and Lai (2003) study comparing Asian students with their Australian peers revealed that the former scored poorly on the ‘truth-seeking’ scale where students should strive “not to let bias or preconception [colour] their search for knowledge and truth” (p. 302). The attributes of independence of thought and unbiased decision-making are said to be limited in Asian students because of “the cultural and school systems that for 2000 years, discouraged individualism...[and] is geared *almost entirely to promoting group solidarity and group consciousness*” (McBride *et al.*, p. 138, emphasis added). This is often attributed to the underlying Confucian heritage culture (CHC) prevalent in Southeast Asia and countries like Singapore which privileges a political philosophy based on communitarian ideology (Lim, 2014). Lim (2014) further argues that this manifests in political activity that is informed by a paternalistic authoritarian ideology in which the people “acquiesce in the political will and wisdom of an elite leadership” (p. 701). Lim’s finding implies that paternalistic authoritarianism and communitarian ideologies are at odds with CT and CR practices. This is further supported by the fact that canonical definitions of CT focus on the

individual through reference to “*self-regulation*” (Facione, 1990, emphasis added), “*self-directed, self-disciplined, self-monitored, and self-corrective thinking*” (Paul & Elder, 2014, emphasis added). CT research drawing on inventories that test ‘dispositions’ then subscribe to the broader criticism that much of teaching and learning research emphasise the “Western model of decontextualised individual psychology” (Li cited in Looker & Chng, 2013, p. 13).

A question that emerges from the above discussion that adopts a deficit model of Asian learners’ CT skills is whether CT and CR skills are compatible with CHCs and if so, what models or forms are taken by CT and CR when these skills are deployed in the Asian context? Tan (2017a) problematises Western CT models by arguing that it champions “individual autonomy” and “social independence” instead of approaching CT as an “act and affirmation of *both the individual and the communal*” (p. 339, emphasis added). In other words, Western CT models appear to privilege the role and psychology of the individual over the community. As Atkinson (1997) notes, the concept of ‘critical’ presupposes that “individual conflict and dissensus are a social reality” while ‘thinking’ “assumes the locus of thought to be within the individual”. As an alternative to the focus on the self in Western CT models, Tan (2017b) proposes that in an Asian context adversarial CT, which privileges conflict, is less valued, and that self-examination and evaluation can be achieved within a “collegial model of critical thinking that seeks to affirm and incorporate everyone’s ideas” (p. 996) or “cooperative critical thinking” (Waller cited in Tan, 2017b). Tan further extends the definition of cooperative critical thinking as taking into account the positions and views of others in forming one’s own judgement. We propose that in addition to taking into account the opinions of other students when forming judgments, a model of cooperative critical thinking can be extended to include a range of participants relevant to the social context in which students engage in CT, such as lecturers and socially valued high-status knowers such as academics and scholars. We particularly place importance on the role of mentors in fostering such thinking in students, and attempt to account for how mentoring can enable a more “knowledgeable and experienced person” to support a “less experienced and knowledgeable person, so as to facilitate that person’s career and personal development” (Roberts, 2000, p. 162). This is foregrounded in the reflective writing texts we analyse in this chapter.

The above literature highlights two approaches to exploring and understanding CT in Asian contexts. The first is to use Western frameworks such as the CCTDI to measure Asian students’ CT dispositions which results in an understanding of Asian learners as *deficit* in CT. The second is to adopt a framework that takes into account the potential differences in CT practices that take place in Asian socio-cultural systems such as CHCs, such as cooperative critical thinking (e.g. Tan, 2017b), in order to account for Asian

learners practicing *different* forms of CT. While both these approaches provide important insights into how CT may differ in Asian and Western contexts, they leave a methodological gap in the exploration of CT skills by focusing on what students *think* constitutes CT (by describing student's understanding of what CT practices are valued in an Asian context, as in Tan's study), rather than focusing on what students demonstrate through their assignments as evidence of CT. In this paper, we aim to uncover *discursive practices* successful students engage in when demonstrating their capacity to think critically in assessment by making these practices visible through the use of appropriate theoretical frameworks. Importantly, we focus on both the "similarities" and "commonalities" (Ryan, 2010) of Western CT models as well as differences in CT as it is deployed in the Asian context.

In the next section, we briefly introduce the frameworks used in this study, namely Appraisal from SFL theory, which allows us to account for how evaluative meaning is deployed by students in their assignments, and the dimension of Specialisation from LCT, which accounts for what kinds of knowledge CR texts appear to value. This is followed by a discussion of our findings based on the Appraisal analysis. The section "Findings" will include a discussion of key CR research comparing and contrasting the kinds of practices valued by lecturers teaching in Asian contexts, and research and practice originating from Western contexts.

Theoretical frameworks: Systemic Functional Linguistics (SFL) and Legitimation Code Theory (LCT)

We begin by justifying the use of two theoretical frameworks in this paper. SFL and LCT researchers have been engaged in complementary analyses of the same data using an interdisciplinary approach to provide "fresh insights on persistent concerns" since the 1960s (Maton & Doran, 2017, p. 605). "The Knowledge Practices of Critical Thinking", a project by the LCT Centre for Knowledge-building at the University of Sydney, emerged from such dialogues as it became evident that CT in applied disciplines was a highly valued but poorly understood concept. Publications emerging from the project have drawn on SFL as means of "translating textual data" (Maton & Doran, 2017, p. 611) into forms that then use LCT concepts as a broader theoretical scaffold for interpreting and understanding this data (Brooke, 2016; Kirk, 2017; Szenes, Tilakaratna, & Maton, 2015; Tilakaratna & Szenes, 2017; Tilakaratna & Szenes, forthcoming).

In this study, we draw on the dimension of Specialisation from LCT to provide the broader theoretical scaffold for selecting and interpreting our coding of evaluative language in our texts. Maton and Chen (2015) note that Specialisation "begins from the premise that every practice is oriented

towards something or by someone.” They thus distinguish between what they refer to as *epistemic relations* (ER) or between practices and their object or focus (that part of the world towards which they are oriented), and *social relations* (SR) or between practices and their subject, author, or actor (who is enacting the practices), or the ‘knowers’ in the texts. Ideally, our study would account for both ER and SR in order to show how students orient to both knowledge and knowers. For brevity, our focus in this paper is on SR because Western literature on CR heavily emphasises relations between discipline-specific practices and the *subjectivity* of the individual student and other actors within the field of practice. In other words, the subjective, emotional, and personal experiences of actors in the texts are emphasised in reflective writing tasks (Tilakaratna & Szenes, 2017). Focussing on social relations and the textual analysis of social relations within the reflective writing tasks allows us to identify and classify subjective meanings attributed to actors in the texts, and account for this type of typically undervalued knowledge in higher education research (Fook *et al.*, 2016).

In order to code subjective meanings in the texts, we draw on the SFL framework of Appraisal. The Appraisal framework is used here to classify types of evaluative language used in the corpus of reflective writing texts. In developing this framework, Martin and White (2005) make a distinction between three regions of evaluative language: emotions (e.g. *She is happy*), judgement of behaviour (e.g. *she is clever*), and appreciation of things (e.g. *the subject was difficult*). Crucial to their framework of evaluative language is the role of the ‘target’, or the person or thing that the evaluative language targets (e.g. *She is clever*). Other important components of the framework include ‘valence’, e.g. the positive and negative meanings associated with the evaluative item.

Through the analysis of successful examples of reflective writing using Appraisal, we aim to explore how SR have been deployed in reflective writing tasks in Asian contexts and present an analytical basis for comparing Asian CR practice with research conducted on CR in Western contexts. Drawing on notions of cooperative critical thinking (Tan, 2017b) which includes both individual and communal roles in the CR process, our analysis uses these frameworks to account for how students position judgements of the self and others in their attempt to apply theory to their experiences as learners.

DATA COLLECTION AND ANALYSIS

In order to identify ‘successful’ reflective practices in the Asian higher education context, with a focus on the National University of Singapore, lecturers from three subjects—Engineering (ENG), Public Writing and

Communication (PC), and English for Academic Purposes (EAP)—were asked to share examples of exemplary high-scoring student texts based on the understanding that subject lecturers are the most qualified at making such an assessment. Summative content analysis (Hsieh & Shannon, 2005), guided by the LCT framework, was conducted to analyse the data. The coders focussed on instances in the text which featured different human participants (from the individual student to cited authors, peers, and mentors). In instances where emotions were expressed or the participants' behaviours were evaluated, the data was coded using the Appraisal framework (Martin & White, 2005). Data trustworthiness was assured through investigator triangulation (Miles & Huberman, 1994), in which there was discussion and data verification by two co-investigators.

Below we briefly introduce the three reflective writing tasks set by lecturers to understand what students learnt during the course. These reflective writing tasks can be classified as what Ghaye (2007) refers to as “a means to demonstrate your developing competence” in a field of study (p. 159).

Engineering (ENG)

The postgraduate module titled “Large Scales Systems Engineering” (LSSE) was one context for our research. Students were expected to analyse and synthesise systems and plan large-scale projects using LSSE frameworks. The individual reflection, which constitutes 10% of the module's total marks, was designed to better understand what the students have learnt and their potential application of these skills beyond the module itself. The lecturer gave them the following basic prompt:

- “Why do I deserve an A? Please provide insights on what you learned and/or how to apply what you have learnt.”

Public Communication (PC)

The undergraduate core module titled “Public Writing and Communication” focuses on communicating to the public in written and spoken form. Students have to produce a ‘reflection letter’ at the end of the module, a reflective writing task which constitutes 10% of the module's total marks. Students were asked to do the following:

- “Periodically look back on your work. What have you learned about public communication, and how has that changed the way you communicate? You should gather concrete examples and details from your personal experience in [both] in-class and out-of-class work to show your development. You should also think about how you have applied the communication principles that we have discussed in class.”

English for Academic Purposes (EAP)

This undergraduate module aims to equip students with an awareness of academic writing genres and language to support their academic literacy throughout their undergraduate studies. The reflection task, which constitutes 20% of the module's total marks, is written in two drafts at the end of the semester and presents students with the following question:

- “Having analysed your own disciplinary context, reflect on what may or may not transfer from the EAP module.”

Students were also expected to reflect on their strengths and weaknesses in relation to their learning.

FINDINGS AND ANALYSIS

In the following sections, themes emerging from the data were organised into two types of targets: the ‘self’ and ‘others’ in the text. These are then divided into types of evaluations: ‘emotions’, ‘judgments’, and valence (‘negative’ and ‘positive’). These analytical categories with corresponding data are presented below. In the section “Implications for Scholarship of Teaching and Learning”, we provide an analysis of the importance of our findings for educationalists in Asian contexts, particularly those who require their students to write critical reflections for assessment purposes.

The ‘self’ as a significant actor in CR writing

Positive and negative emotional reactions

Fook and Gardner (2007) note that in selecting certain incidents to critically reflect on, a majority of reflectors focus on “puzzling, traumatic, [incidents] they couldn’t stop worrying about or forget, that they regretted, thought they could have handled better, or felt strongly (negatively) about” (p. 77). In their study on the evaluative language in texts by Australian business and social work students, Tilakaratna and Szenes (2017) noted repeated patterns of negative emotional reactions to incidents or experiences where students function as the ‘emoter’ (Martin & White, 2005) in the texts.

The reflective writing tasks analysed in this study also focussed primarily on negative experiences during which students felt challenged by their learning. The students began by reflecting on their own emotional reactions to their performance or learning during the course. For example, a student taking the EAP module, compulsory for students who fail a qualifying language test, showed a high level of negative emotion (in bold) triggered by the need to attend these classes (underlined):

It was with deep **melancholy, disdain and indignance** [*sic*] that I attended my first [EAP] tutorial. (EAP)

Students in the PC module also shared their emotional reactions to the peer review activity. In the first example below, the student was apprehensive about providing her peer with an honest critique (bold). In the second instance, the student shared his/her negative emotional reaction (bold) to peer feedback (underlined):

I was **afraid** that pointing out their flaws would sour the relationship. (PC)

The objective criticism was **cutting** initially. (PC)

An Engineering student shared feelings of insecurity and unhappiness (bold) triggered by his realisation of Singapore's economic vulnerability as a nation (underlined) during a 'Strengths, Weaknesses, Opportunities, and Threats' (SWOT) analysis (Humphrey, 2005) of a case study (underlined):

Working on the case study and project made me a **worried** man. (ENG)

These examples indicate that students appear to understand that learning is a difficult process, requiring them to overcome feelings of insecurity and discomfort, and that a component of CR writing tasks would require them to share these feelings. Notably, none of the prompts outlined in the previous section "Data Collection and Analysis" explicitly ask students to share their emotional reactions. However, students across the three modules engaged with their emotions as part of their reflections.

In addition to negative emotional reactions, the texts featured also included instances where students shared positive feelings (bold) triggered by specific skills acquired during the course (underlined). Students in the EAP and Engineering modules, for instance, expressed happiness and gratitude at the skills they gained:

I am **glad** to note that I was able to find the relevance and transferability in other modules aside from writing essays. (EAP)

With this understanding, I was able to **appreciate** most of the concepts taught in class. (ENG)

Although not explicitly required in the task instructions, students appear to understand that personalised emotion is a required feature of effective reflective writing tasks. However, what is significant in this corpus is that

even while lecturers have rewarded students who displayed the ability to convey emotional reactions in their reflective writing, there were relatively *few* examples of these emotional reactions; often one or two instances in each assignment analysed. This contrasted significantly to the high level of personal and particularly *negative* ‘feelings’ evident in western reflective writing (Ghaye, 2007; O’Connell & Dymont, 2011; Sutton, Townend, & Wright, 2007).

Judgements

In addition to sharing their emotions and how they feel in their assignments, students also shared their judgements about their own behaviour and negative and positive behavioural assessments that target other significant actors in their texts, such as members of their community (e.g. other students, their professors, or classmates). We begin by looking at the way in which the students positively or negatively evaluate their own behaviour.

i. Negative self-judgements

The shift from emotional reactions (how did the student feel) to behavioural assessment (how well did the student behave) is discussed in popular CR models such as Gibbs’ reflective cycle (1998), which states that students need to engage with and share their emotions and then proceed to reflect on these emotional reactions to show that they are reflective practitioners.

As students initially shared negative emotions, these emotions were typically connected to negative assessments of their own classroom behaviour and during the learning process. For example, the following response from an EAP student showed a shift from negative self-judgement (**bold**) to realisation (*italics*) as he/she referred to the specific skills gained in the course.

Previously, I **didn’t pay much attention** to text cohesion. However, after learning about text cohesion in ES1103, I *realised* that without text cohesion, the readers will have a hard time reading through the essay, which could be made worse with more information.

Negative self-judgements found in the texts can be further classified in the following ways. Firstly, students made a distinction between the difficulty they faced in the classroom and their own capacity to act. For example, in the following reflection by an Engineering student, he/she found the module content (underlined) challenging (**bold**):

I found it very **hard to grasp the concept that the lecturer was trying to teach us in this module** (ENG)

In contrast, EAP and PC students referred to their own lack of capacity (and performance), as observed in the following reflections:

I was rather **out of practice** by the time I entered university (EAP).

I **struggled** to think of what to say and ended up **badly** delivering a barely-coherent speech (PC)

I have always been deterred by writing assignment as I always fared **badly** in them. (EAP)

ii. Positive self-judgements

In addition to negative self-evaluation, students shared positive judgements of their improved skills over the course of their studies. This resonates with Facione's (1990) statement that "improving one's CT skills involves judging when one is or is not performing well" (p. 16). Many students reflected that they acquired new skills as a result of attending the course, as shown in the first example, and had done so through their own tenacity and hard work, as shown in the following two examples:

Prior to taking [EAP], there is always a lack of citation my essays. **Leveraging on this new-found skill**, if I am to tell someone how rampant trafficking cases in Cambodia are, it would sound more credible if I were to reference it from a reputable source (EAP)

Therefore, I **have made deliberate attempts** to include a scope statement in my own writings in the scientific discipline (EAP)

...I **have attempted to apply** the lessons learnt during the graded oral presentation, which led to a much better performance... (PC)

In the example below, an EAP student reflected on both the strengths and weaknesses in his/her written work in the conclusion to their assignment:

...my strengths are that I **am able** to identify information required for my writing and incorporate them into my writing by paraphrasing or synthesising.

These positive self-judgements evident in the text can be contrasted with the 'transformation' stage of the reflective writing tasks by Australian business and social work students (Szenes, Tilakaratna, & Maton, 2015), where students promised to change their behaviour *in the future* and thus focussed on future actions rather than on evidence of behavioural changes over the duration of the course.

Evaluation directed towards significant actors

While literature on CT studies acknowledge the role mentors, lecturers, and peers can play in the learning process, they rarely discuss how these participants enter into or are evaluated in the reflective writing tasks themselves (Ryan & Ryan, 2013). In addition to exploring their own emotions and evaluating their learning behaviour, students in this study on several occasions refer to other significant actors and assess their contributions to the student's learning.

Drawing on Knowles and Gardner's (2008, p. 1202) classification of four fundamental group types: intimacy (e.g. family, groups of friends), task (e.g. a study or work group), social identity (e.g. gender, race, nationhood), and associations (e.g. people who share a common hobby such as a sport), we found that task (e.g. lecturers and peers) and social identity groups (e.g. high status knowers such as scholars and leaders) were frequently referenced in the text corpus. These social actors tend to function as legitimate knowers in the texts, and students would link their learning to the knowledge learned through transmission or interaction. This differs from the usual individualised introspection and narrative of self-actualisation which reflects the student gaining independence from a mentor, as commonly viewed in Western contexts (Sherman, 1994; Roberts, 2000).

Module lecturers

The role of the teacher in facilitating CR and modelling appropriate reflective practice (Facione, 1990) is emphasised in CT literature and explicitly realised in the data, which contains frequent positive references to specific lecturers and their teaching of the modules. In our data, we found no negative student feedback about the module lecturers. This resonates with Tan's (2017b) findings that in the Singaporean context, the teacher functions as the content expert. There were frequent references to knowledge transmission from the modules, such as "the learning journey", "valuable insights reaped", and "a valuable learning experience", and these were linked to the lecturers' facilitation. Thus, the findings indicate that the students tend to explicitly revere the lecturer as the knowledge transmitter and facilitator of learning. In the Engineering corpus, in which a rich description of content knowledge is provided, a student positively attributes knowledge transfer (**bold**) to their lecturer, who functions as the target of expertise (underlined):

Prof [name] **further defined** that the other factors that take priority in a large-scale system are politics, economics, social, and environment.

Praise given by the students can be viewed as a strategy to legitimatise the authority figures referenced as well as the content knowledge they provide.

Peers

One PC student discussed the importance of participating in a ‘cooperative activity’ such as peer review and how providing critical feedback to others can be beneficial, thus acknowledging the importance of the task group (Knowles & Gardner, 2008). An example from the EAP module shows that the peers’ roles in improving practice can provide an important learning opportunity:

One **effective** way to improve on my cohesion and coherence in writing is peer review, which I **benefited** a lot from during my ES1103 module as it provides me a **different perspective and understanding** of what I have written and I will continue to have my peers reviewing my disciplinary writing in the future.

Additionally, the Engineering student attributed his academic success to entering his peer group of ‘junior engineers’. This use of a social group identifier infers that the achievement from the module is a collective process and it is the cohort, not just the individual student, who have been successful.

High status knowers

The function of high status knowers, particularly in the form of theorists or researchers respected in a particular disciplinary field and made reference to in academic texts, has been well documented in SFL research (Hood, 2010). Ryan and Ryan (2015) note that theory plays a significant role in reflective writing tasks, as students are not only expected to share their personal feelings and make behavioural assessments, they also have to engage with appropriate research to show a movement from situated learning to engagement with key theorists in their field of study. The texts in the EAP module refer to academic experts, such as academic researchers, through citations (bold) with the corresponding instances of appraisal (underlined) sourced to these researchers rather than the students:

The ability to write **coherently, cohesively** and with **clarity** is an **indispensable** skill in the science discipline (Goldbort, 2009).

Due to the nature of the knowledge imparted in the PC module, students referred to popular academic researchers, citing their TED talks (underlined) and evaluating their skills (underlined) in order to show the relevance of this particular speaker to public communication:

Applying the concept of empathy made clearer through Brene Brown's engaging video...I learnt the **importance of establishing a connection with the audience in order to touch their hearts and create change**.

High status knowers who were not academic experts but socio-cultural icons were also cited in the corpus of texts as students drew on ancient scholars and first-generation Singaporeans to focus on tradition and wisdom developed over time. In an Engineering example, a student cited the Chinese military strategist, Sun Tzu (544–496 BC) with reference to the Singaporean economic strategy in the region:

Know yourself, know the enemy, this will ensure that you will not lose in all battles.

The positive focus on paternalistic authoritarianism and tradition also emerges in the form of the symbolic significant other in the same text as the student also gave a positive evaluation (bold) of the decisions (underlined) made by Singapore's pioneer leaders:

I realized that Singapore has so many vulnerabilities, and the reason to our current success was because of the **wise and far-sighted decisions that our pioneer leaders had made** (ENG).

This positive judgement of collective identity also follows the CHC ideal that the development of an effective knowledge-sharing community is a historical process (Chiu, 2009; Lim, 2014) and reiterates the idea of the nation and community as social group identifiers (Knowles & Gardner, 2008). As Kim (2003) observes, good leadership and good education is inextricably linked to modelling and imitation and its goal is to serve the collective good.

IMPLICATIONS FOR THE SCHOLARSHIP OF TEACHING AND LEARNING

In this discussion of our findings in relation to reflective writing in the Asian context, we revisit the question that we asked at the beginning:

What discursive *practices* are deployed in reflective writing by students in an Asian context when demonstrating their capacity to critically reflect on and learn from past experiences?

Our focus has been on the LCT concept of 'social relations' that were enacted in the reflective writing tasks by students in Engineering, Public Writing and Communication, and English for Academic Purposes. In our data, we noted

that in contrast to Western students who focus on negative self-judgement, Asian students share failures and successes in their reflective texts. In our corpus of texts, students initially reflected on and engaged with their negative emotions and judged their own behaviour (prior to attending the course) negatively. However, they often concluded their texts with positive self-judgements, constructing themselves as legitimate knowers following their apprenticeship into their fields of study. The examples of negative and positive behavioural assessments and emotions in these texts show evidence of a move towards what Ghaye (2007) defines as reflective practice that address both 'deficit-based questions' (e.g. what went wrong) *and* 'strength-based questions' (e.g. what went well) in reflecting on past experiences without relegating changed and improved behaviour and performance to future practice.

In this paper, we argue that current models for measuring CT skills that have emerged in Western traditions and been applied to Asian contexts, pose potential problems for understanding CT as it is enacted in the context of Asian SoTL. For example, the application of CCTDI scales to measure CT skills include categories such as 'open-mindedness', 'analyticity', 'systematicity', 'confidence in reasoning', 'inquisitiveness', and 'maturity of judgement', which typically focus on individual dispositions to act. However, we propose that the category of 'confidence in reasoning' might be more applicable to the Asian context, as Asian students tend to draw on a range of complex social relations that reflect the communitarian ideology in which their learning is situated. This scale states:

A family, team, office, community, or society can be trustful of reasoned judgment as the means of solving problems and reaching goals' (retrieved from Insight Assessment, <https://www.insightassessment.com/Resources/Measuring-Reasoning-Skills-and-Mindset/Measuring-Mindset-Attributes/Confidence-in-Reasoning>).

This statement connects reasoned judgment to community and in this way, seems to more appropriately reflect the content of the valued reflections from our corpus. Lecturers not only need to consider these differences, they also need to be able to model for students examples of successful reflections enacted within an Asian higher education institution, and show them what CR practice might look like in an Asian context.

Additionally, we argue that independence of mind, considered one of the hallmarks of effective Western reflective practices and assessment systems such as the CCTDI, might be more complex in Asian contexts. The corpus revealed that students expressed gratitude towards the learning they acquired during the course by acknowledging the roles of a range of legitimate

knowers with whom they were closely associated. This focus on other actors such as lecturers and peers can be described as evidence of “cooperative critical thinking” (Tan, 2017b) with a positive focus on mentorship and a continuing respect for paternalistic authoritarianism. Students displayed the capacity to engage with researchers in their field of practice and other social actors within their immediate environment, in this case lecturers and peers, and/or to draw on socio-cultural knowledge as opposed to just disciplinary knowledge in their reflective assignments.

CONCLUSIONS

We conclude this paper by proposing that using CT frameworks without reference to actual evidence is problematic because it presumes that Western critical theory can be universally adopted without any critical questioning of the assumptions that underlie such frameworks, that have been practiced and researched within a specific context, and particularly in a Western context that has long been associated with power and oppression (Ryan, 2010; Song, 2016, Song & McCarthy, 2018). Our research has some limitations, including a small sample of texts with only three disciplines reflected. Practices in other disciplines may differ considerably and a wider investigation of CR practices from Asian contexts is necessary to determine the extent to which Asian students tend to focus on learning as a consequence of their experiences within an institutional context. In addition, it is worthwhile to investigate the extent to which students from other disciplines engage with a range of different group types, including the more intimate social groups such as lecturers and peers providing guidance in their learning in reflective writing tasks.

Additionally, we conclude by proposing that frameworks such as LCT and SFL, which examine knowledge practices and make visible the linguistic resources that constitute these knowledge practices, allow us the first step towards understanding CT as it is enacted in the context of an Asian higher education institution. In doing so, we have taken into account the call in Asian SoTL to problematise and defamiliarise ‘western contexts of learning’ (Looker, 2011, p. 29). By classifying the types of social actors present in a corpus of texts and associated evaluative meaning, our research has shown that positive self-representation and communitarian ideology is manifested in the text as a means by which Asian students can engage in reflective practice through ‘co-operative’ rather than adversarial means (Tan, 2017b). We argue that given the focus on ‘group consciousness’ and ‘solidarity’ (Lim, 2014), Asian students engage with a more complex array of social actors and legitimate knowers in their texts as the basis for incorporating external knowledge. Our study also showed that students are willing to construct themselves as legitimate

knowers engaging with positive transformation of the self within the course to show change through engagement with the curriculum content. The emphasis on community and positive self-judgement emerged as we adopted a framework that made visible *knowledge practices* rather perceptions of what constitutes CT, allowing us to account for potential differences in how CT is deployed across disciplinary and geographical contexts. We wish to conclude by asserting that our research does not aim to essentialise or reify Asian practices by drawing attention to these practices through textual examples. Instead, we argue that using LCT and SFL to focus on similar and *different* practices rather than *deficit* practices allows us to show how successful students in Asian contexts engage with critical thinking and reflection as a potential challenge to the existing understandings of Western critical thinking that dominate the discourse on higher education research and practice.

ENDNOTE

1. See <http://www.legitimationcodetheory.com> for more information about this theory.

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