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# Development of Undergraduate Student's Criticality in Social Sciences in Higher Education: A Comparative Study with Socio-Material Perspective

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## Abstract

In the field of higher education, there are two dominant strands of interpretation of criticality, either as a decontextualized skill of logical reasoning, or a sense of action within larger contexts more than mere cognition. This research offers a reclaiming and reimagining of criticality in universities as an affective process, highlighting the entanglement of social, discursive and material perspectives. This research takes a comparative lens to investigate undergraduate students' perceptions of criticality and institutional cultivation of it in a Sociology undergraduate degree in China and the UK, adopting a qualitative interview method. Differences were found between cultures regarding the level of engagement with a range of criticality-embedded practices, including field work, critical inquiry in class, group work, etc. Through the development of criticality in various activities, students' feelings towards it shifted with contexts. While placed within physical and discursive universities that convey a sense of professionalism, students in the study acknowledged the importance of criticality and proactively demonstrated it. However, the feeling towards showcasing criticality outside campus was two-fold. Whereas criticality can be associated with negativity in social interactions, its value is appreciated as it enabled students to reconstruct their identities into a more rational, tolerant and caring one.

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## Introduction

In all strands of practices within and beyond higher education, it is worth noting that the importance of criticality has been appreciated. Despite being a contested concept with various implicit definitions and beliefs, voices promoting the cultivation of criticality are heard in a number of contexts (e.g., Healey and Jenkins, 2009; Davies and Barnett, 2015). Students are required to critically evaluate, analyse, and appraise in each module and each program, as pinpointed by learner outcomes (Dunne, 2015). The importance of criticality has also been promoted beyond campus in policy documents, surveys on employer expectations, etc. (UNESCO, 2014; Sin et al., 2015), a number of which go as far as to suggest the lack thereof in graduate attributes and the consequences to individuals and wider communities. While the centrality of criticality has been heralded in higher education in a variety of places including curriculum design, teaching approaches and learning outcomes, other terms have been used interchangeably, one of which seen predominantly is critical thinking, engendering a rather complicated discussion of what these terms refer to and which one is more applicable and appropriate to fostering of graduates

today. This paper will adopt the term criticality instead of critical thinking in arguing its role as an undeniably important skill of reasoning and practical action, yet as an unwelcoming nuisance nonetheless for undergraduates majoring in social sciences, as illuminated by the analysis of collected data. The differences between the two synonymous terms will be elucidated, while at the same time featuring the chronological development of the perception of desirable criticality, after which the affective and socio-material dimension of criticality will be highlighted to enrich the discussion of criticality and its cultivation within and beyond higher education. Through analysis of qualitative data from one university in China and the UK respectively, the key themes that emerged from students' daily experience of learning and interaction with peers and staff suggest the emotional and sometimes exclusive nature of criticality, challenge and reshape the dominant ideologies and practices surrounding it, in the hope to embrace a more inclusive and accessible landscape for students and educators worldwide.

### **Critical Thinking and Criticality**

Despite an inordinate number of definitions and elaborations of criticality within academia, criticality is often used synonymously with critical thinking. However, I propose that there are several major differences between these two terms that my favour over the deployment of criticality is grounded in. First, critical thinking engenders an instrumental cognitive process that operates in vacuum, devoid of contexts, and it is understood as a tool that anyone regardless of their background could learn to wield. In sharp contrast to it, criticality positions the human being at the centre, and all the sentiment and determination associated with a specific decision in his/her life is inseparable from the context the decision is made within and the cause it is made for (Dunne, 2015). If the former perspective is to be accepted, it could be argued that the people involved resemble the audience in a theatre where the skill is offered to them, whereas the latter perspective suggests the role of an author who is actively engaged in making the show, applying criticality while depending on what is going on at different stages. This difference is highlighted in the first two parts of Zembylas's (2022) encapsulation of three waves of imagining the binary of criticality/critical thinking in chronological order.

The first wave came around in the 1970s which did not separate the two terms. Critical thinking is viewed as a set of skills or competencies, underpinned by the philosophical understanding that stressed the importance of logical and reasonable thinking, and non-critical beings were offered courses to improve their critical thinking 'skills' (Zembylas, 2022). One exemplar of the set of skills encompassed by criticality/critical thinking is Moore's (2011) review that involves seven competencies, which are judgement, scepticism, a simple originality, sensitive readings, rationality, an activist engagement with knowledge and self-reflexivity. This prevailing wave offers a more reductionist and simplistic assessment of critical thinking, based on the scrutinization of which the second wave that promotes criticality arose. The second wave around the 1980s carried with it a feminist and critical pedagogy undertone that aimed to foster the student as a critical person from a holistic perspective. As Barnett (1997, p.1) argues, 'Critical persons are more than just thinkers.' The rising of this wave also attracted and was concomitantly shaped by a number of other scholars that preferred the adoption of criticality to critical thinking, such as Bailin and Siegel (2002) who reject the use of 'skills' altogether, and Paul and Elder (2019) that claim that disposition plays an equally important role as skills in action-based behaviour. Indeed, compared to critical

thinking, criticality is felt, and thus impossible for a disembedding of the person from the lived experience, which requires and challenges educators to involve students in the process of critically understanding themselves and their experiences rather than disentangling them from their reality in an attempt to conform to deterministic models embedded in critical thinking enhancement courses. However, while the appeal for fostering critical people rather than critical thinkers may be sound, the view that only criticality enables individuals to understand and reflect upon themselves could be criticized, as Moore's (2011) inclusion of self-reflexivity suggests otherwise. Further, even if students are enrolled in courses aimed to improve their critical thinking skills based on a 'deficit' model and reductionist view, there is no guarantee that each student understands what they are taught at the same pace, for their individuality differs which may mediate their judgement. Hence it is arguably inevitable that there are some overlaps between the two terms.

Beyond the debate of viewing students as the author or audience in the development of their criticality/critical thinking, another difference between the typology of the two terms can be referred to as the specialist/generalist debate. This contentious debate hinges on the understanding of criticality/critical thinking as something that can be transferred to and applied in a variety of contexts or something that is discipline-specific. Those that see critical thinking as a constellation of skills may be inclined to argue for its lack of transferability, as McPeck (1981) argues that since critical thinking, or thinking in general, is always linked to a certain matter of subject that does not take place in vacuum, it is inadvisable to treat it as a generic skill that transcends different fields. While it is reasonable to see thinking as concrete, it does not negate the fact that contemporary human beings are immersed in an environment far from vacuum. As we are flooded by a stream of data and information that present themselves in mostly non-linear forms, critical thinking that implies a 'switch-on' mechanism that is only activated when certain topics arise may no longer be suitable (Bailin and Siegel, 2002), whereas the generalist stance of criticality as a form of being that speaks to the individual's connection to the context is more desirable for education and wider personal and public interest today.

Hence, by criticizing and rejecting critical thinking for its oversimplicity, lack of integration of 'being' within a particular context, and the confinement of the thinker within specific disciplines, Barnett (1997) provides one of the most widely accepted models of criticality. He described criticality as a form of epistemology that is more than a cognitive skill and added critical action to critical thinking and reflexivity. There are four levels of criticality designed with increasing difficulty from critical skills, reflexivity, refashioning of traditions, to transformative critique, and three domains which are knowledge, self, and world (Barnett, 1997). Within each domain, it is expected that students progress from level 1 to level 4 to achieve full criticality. At the first two levels, the focus is on critical thinking and reflexivity, which is about assessing, analysing, and synthesizing existing knowledge, presenting it and identifying limitations, reflecting on personal experience, and connecting it with theories on one's own. At the advanced levels, deeper investigations of academic traditions and practices are carried out in order to create new models, and appeals to a larger number of participants are made to generate outcomes that accommodate the interests of wider social and cultural community.

In this way, criticality does not only embrace rationality and logical reasoning, but individual's holistic encounter with life involved in every decision-making process in context-specific circumstances. Further to this, not only in

decision-making do we exercise our criticality, as Barnett (1997) argues, as our experience of criticality is constantly influenced by our own knowledge of ourselves, others around us, the fields of interest we operate in, and the world, which are all inextricably linked. Therefore, it is reasonable to surmise that this epistemology of Barnett differs for each person, and each human being makes judgements on what to see, how to act based on what is seen, and what to make of the action or the consequences based on one's unique standards and criteria. In this way, Barnett's model offers three intertwined domains of criticality, which are critical reason, critical reflexivity and critical action (Dunne, 2015), which drew out the sense of action in criticality as one of the prominent differences to the cognitive list of skills critical thinking is reduced to. This interpretation of criticality is in line with Zembylas's (2022) summary of the second wave of criticality that takes into account the sociocultural context that mediates individual perception and action of criticality, which is also named the educational perspective, that integrates the feminist approach and citizenship development into the curriculum (Davies and Barnett, 2015). The heightened role of practical action encourages students to develop criticality while contemplating how they could change the world with it.

### **Affective Criticality**

While the concept of critical being as a person harnessing more than a set of cognitive critical thinking skills in lived experience of criticality has prevailed after the 1980s and permeated all levels of higher education today, another wave of understanding of criticality emerged after 2010 that appealed to the inclusion of other dimensions such as emotions and materiality (Zembylas, 2022). Arguably, despite the socio-cultural theorization of critical thinking which turns the attention to what criticality can do instead of what it is, the affective and emotional dimensions and the entanglement with the social, discursive and material web are overlooked. In reclaiming criticality as an affective process, Holma (2015) highlights the role of emotion from two perspectives in chipping away the binary between emotion/reason. On the one hand, she suggested that emotions inevitably play an epistemological function that mediates our routine decisions that cannot be simply ignored; on the other hand, she considered emotions as part of the motivations behind 'doing' critical thinking. That is to say, emotions act as one of the driving forces of our envision and enactment of criticality.

However, despite her emphasis on the interconnectedness of emotions and reasons Holma (2015) seems to ground her theory on the humanist paradigm and overlooks the socio-material conditions which criticality emerges through. The socio-material perspective focuses on the agency of human and non-human actors and sees the world not as a product created and preceded by social relations of humans but as entanglements of critical thinkers, matters of things and contexts (Fenwick and Edwards, 2013). In other words, in contrast to seeing individual agencies and interactions as the building blocks of the world, it is more appropriate to view them as assemblages of humans, materials and discourses (Barad, 2003), where matter is capable of affecting and being affected rather than acting merely as an invisible, lifeless canvas. A socio-material analysis of criticality allows us to reveal the unequal power relations of different forms of criticality performed and valued in different contexts, specifically to illuminate the ways in which 'particular accounts of criticality become more visible, how they articulate and what work they perform in their process (Fenwick and Edwards, 2013, p. 35)'. This approach is of particular importance and relevance to higher education, as it can be applied to challenge one of the dominant discourses

that views undergraduates as consumers and the higher education institution as a place for student instrumental skill and knowledge accumulation. In other words, it provides an alternative perspective that differs from the notion that criticality is a key component of the set of graduate attributes that give value to students' investment in higher education, while everyone can naturally enjoy access to and receive privileges of critical reasoning provided by it without limitations.

The key implication of socio-material affective criticality is that students do not merely do criticality, as the second wave that favours criticality over critical thinking suggests, but they feel it (Danvers, 2016). While the humanist paradigm of criticality that the socio-material stance rejects also emphasizes that different students might experience and act on criticality in different ways, it is nonetheless built on a human-centred perspective. The implication of such a perspective is that students are the sole protagonists and owners of their will and actions, and those that surround them are mere instruments to be employed at a certain point, which the socio-material paradigm of criticality contrasts sharply. The feelings associated with criticality in the latter paradigm refer to simple responsive emotions such as feeling proud when an assignment is marked high for containing a critical tone, but more importantly arise due to the intertwinement of students, physical spaces, cultural and social contexts in making the decision to acknowledge and demonstrate criticality, and to what extent. In interviewing first-year undergraduates, Danvers (2016) finds that students' displaying of certain acts that can be considered critical is a contingent, unestablished and dynamic process.

On the one hand, students in this study recognized the importance of showing criticality in coursework and assessments and it appeared that criticality is closely tied up with their self-perception of a successful student. While criticality is situated within higher education, it is usually found in the physical space of a rectangular lecture room, with tools and equipment such as pens and laptops that convey a sense of professionalism, as well as it is in the social relationships between academics and students and the discursive contexts of what is a good student (Danvers, 2016). This finding resonates with Fenwick's (2015) claim that everyday things are usually treated as the extension of human minds and representatives subsumed by human agencies, while they are actually political matters that carry values and interests, through the inscription of which certain practices and values are rendered permanent. In this sense, tables, computers, projectors and text materials specific to a discipline are performative, and in combination with undergraduates' behaviour produce the boundaries of legitimate criticality. Sorensen (2009) echoes this argument as she traced different patterns that emerged through different combinations of objects and spaces. Learning at a blackboard, in a classroom project, and an online setting produce different materiality of learning and human presence (Sorensen, 2009), and in the midst of the complex process of entangling with which 'thinking' happens to us instead of being created by us (Fenwick, 2015).

This leads to the other dimension of affective criticality where students reported only demonstrating their criticality when they feel the social context permitted it and when they associated it with positive feelings. Ahmed (2014), taking a feminist approach, suggests that our emotions are related to what is socially accepted and appreciated as good and desirable, as we tend to feel happy when others recognize and praise our behaviour. Thus, the affect is shared, and as mentioned above, higher education usually determines the correct forms of criticality and circulates it, and students who abide by it will be rewarded and motivated to repeat it while others that do not

will be alienated. However, students may choose to withhold their criticality in social interactions as it is seen as a noisy and unwelcome bodily response in private spaces such as family (Danvers, 2016). This is because criticality can be conceptually related to negative feelings. While it is clear from ample research delineating what criticality means for undergraduates that being critical is different than being negative towards anyone's opinions, it indeed implies questioning, evaluating, deliberation over what to believe, and sometimes debate (Cottrell, 2011), which may trigger intense conversations deemed as socially inappropriate in daily life. Besides, a critical person is imagined to be a serious, calm, rational person who might be respected in certain circumstances but also feared for him pointing out others' faults. The term 'him' is used here because interestingly despite the connection between criticality and negativity has been drawn for both genders, female students tend to express a stronger intention to separate criticality from its negativity (Danvers, 2016), as critical voices of females are more likely to be positioned as killjoys who are troublesome, immature and who ruins the atmosphere (Ahmed, 2014), as it does not abide by traditional conventions of gentle, docile femininity.

In summary, this section highlights the debate over a neutral decontextualised notion of criticality, and puts forward an alternative understanding of it beyond a simplistic instrumental one. On the one hand, the performance of criticality hinges on the social, material, and discursive assemblages in the midst of which it emerges, as it is viewed as valuable and professional when circulated around higher education, whereas troublesome and negative in social settings. On the other hand, it is concomitantly gendered and exclusive as it entangles with other dominant norms and discourses around vulnerable groups. Therefore, in my research, I ask: what are the perceptions and practices of criticality among undergraduates? Do they choose to exercise and feel criticality in different ways within and beyond campus? Do some groups become more visible or have more access to criticality than others? Such questions move beyond envisioning criticality as a skill possessed or action initiated by human beings who are placed at the centre of the academic and practical world, instead attempting to understand criticality as a product that emerged through the complex entanglements of individuals, others, objects, physical, political, cultural and discursive environment.

## **Method**

The data that inform this paper is drawn from a larger qualitative Ph.D. research study that focuses on exploring and comparing undergraduates' experiences with research training and their research capability development in a department of Sociology in China and the UK. Criticality emerged from a prior literature review and later qualitative interviews as one of the core concepts and practices inscribed in the curriculum and assessments tied with research capability development, and also manifested itself in various places beyond campus. I chose to work with senior and final-year undergraduate students because they are more likely to be more experienced and resourceful with different layers and aspects of university life, and more insightful regarding the topic, compared to junior students.

The appeal to integrate research into undergraduate education was first heard in the 1980s in the US, after which it circulated in a number of countries globally (Boyer Commission, 1998), aiming to improve teaching quality and foster a range of graduate attributes considered to be vital to thriving in future employment and beyond, of which

criticality is the key. The idea of criticality is also found in Chinese education, which first appeared in second language education and related literature as the number of international students in English-speaking countries was increasing in the 1990s, and students with a non-western cultural background, including Chinese, were usually described as deficient in applying criticality to make reasoned judgements (Lu and Singh, 2017).

In response to the Chinese government and the public's appeal to foster critical, creative and innovative students, Chinese universities started to integrate criticality into the curriculum a decade ago (ibid.) and the goal was set to foster students' ability to analyse information, solve problems and contribute to the personal and public interest. In conducting this comparative study in one comprehensive research university in China and the UK respectively, I wanted to demonstrate the role of criticality in student's academic and personal encounters, in order to challenge the notion of criticality from a humanist perspective and a deficit model, and to speak back to the idea that students are customers (Barnett, 2013) seeking a certain set of instrumental products from higher education. Also, the different political, cultural and institutional environments of the two universities have the potential to showcase how criticality might be mediated by different assemblages, in the meanwhile shaping and being shaped by student experience. The discipline of Sociology was chosen because while it was not practical or desirable to carry out valid comparative research in different academic fields featured by distinct academic traditions, Sociology is recognized as one representative discipline to which the training of criticality is at its core.

Specifically, the two universities chosen share a similar national ranking reputation applying an analogy approach, especially in terms of their prestigious status in social sciences. With ethical clearance from the two universities, I first conducted semi-structured interviews with ten final-year (third-year) Chinese international undergraduate students and one local student in BSc Sociology at the UK university from October to December 2022, then I interviewed nine final-year (fourth-year) and two third-year Chinese students in Sociology at the Chinese university from April to May 2023. The majority of participants in both institutions are Chinese because the students would have arguably grown up in similar cultural and social environments before they were enrolled in different universities in different countries, so any differences in their views towards the cultivation of criticality at higher education could be largely dependent on the institutional practices, while interviews with the UK local students could risk missing out knowledge and facts which are aligned with wider culture and rendered normal and invisible.

All semi-structured interviews were conducted face-to-face, and the questions asked were mostly the same, with small variances based on participants' at-site answers. The overall aim was to explore students' engagements with criticality, and their emotions and reflections associated with it in various domains of life. Questions asked encompass three major aspects: students' perception of criticality, their encounter with it in all aspects of on-campus education such as in teaching and research, their feelings towards it in daily life and corresponding practices. The method of vignette was used to encourage narratives and elicit more detailed responses. After the data was collected and imported into NVivo, inductive thematic analysis (Braun and Clarke, 2023) was conducted, as all themes emerged through the analysis of data with literature as background, rather than drawing out themes from literature directly.

## Findings

This research produced a number of findings that are categorized into two themes, which are the ‘right’ criticality with professionalism, and the ‘wrong’ criticality with affects. Students’ accounts from the UK university and Chinese university will be compared and contrasted. The first theme focuses on criticality within campus, where students’ interpretations of and feelings towards what criticality entails and the constellation of activities they engage in that develop one particular understanding of criticality will be elucidated. The second theme is concerned with student’s engagement with criticality in social interactions daily, and the variety of emotions and sentiments expressed towards criticality.

### The ‘Right’ Criticality in Campus

When asked explicitly about what criticality is in their own words and whether they encountered this concept in their study, all students from both institutions gave positive answers, confirming they understood the importance of criticality in Sociology and providing their own definitions. While nearly all students attributed their awareness of the significance of criticality to teaching and assessment in the program, some went further to suggest criticality is the core feature of Sociology, marking it a distinct discipline, thus their engagement with criticality is unavoidable. However, students’ definitions and interpretations of the term differ,

I think when we write essays, the teacher will always emphasize critical thinking, that is, you put forward a point of view, then you refute yourself, and then you refute and refute, it just keeps coming. (Interview 2, UK)

A critical report such as a qualitative report is definitely different from a critical analysis of different theories. For critical research done by yourself, criticality may be to point out your own shortcomings in research methods and how to improve them. If it is an analysis, it is more difficult, as it is to analyse the limitation of its theories. (Interview 4, UK)

Critical thinking is when you are evaluating something, such as GaoKao, you should think about how you can improve it, what you can do to fill the gap in the field, instead of criticizing it for the sake of criticizing. (Interview 10, China)

It appears that while there is some sound logic behind each participant’s interpretation of criticality, there is no unanimous view, speaking to the nuances and ambiguities of the concept, despite its professionalism and prevalence. These views suggest that participants saw criticality as both a skill for writing discipline-specific assignments and a viewpoint that they learned to adopt when analysing and evaluating social issues (Interview 10, China). Since individuals pick up and interpret the social issue of analytical interest differently, arguably criticality is tied up with the critical beings’ particular experience, while the cognitive paradigm of critical thinking is also present. Also, all participants from both universities stressed that there was a lack of clear instructions in the program. For the UK students, they understood the central role of criticality in their study as nearly all

assessment criteria contained this, and some seminar tutors even invested one session in facilitating them developing arguments and polishing draft essays, yet the feeling of anxiety and uncertainty is still circulated in student bodies,

Every time teachers give me a template, like an essay template, I always do really badly on that essay. When they say this template will help you be critical, I'll follow it and I get like 40. (Interview 10, UK)

In fact, I often use the university library to find readings related to some of my ideas, which helps me to be critical. But in fact, they only taught us how to use these things when we are final year. We have already figured out these things by ourselves in the first year. Is it really not too late to teach me? (Interview 6, UK)

I think they regard critical thinking as a common sense, because maybe they have the concept of critical thinking in their education since they were young, so I think they all know how to think critically. (Interview 9, UK)

Although additional support beyond in-class teaching and assessment feedback was mentioned during interviews such as the academic writing centre, it is not compulsory and only a few participants reported enlisting this support, while others chose not to. This bears some resemblance to the experience of undergraduates in the Chinese university, as students also reported a general lack of specific guidance on criticality in class, and one can only seek extra clarifications during office hours with academics, which requires full autonomy from the student, arguably widening the gap between the students who are proactive and vocal and those that are not. However, there is also a notable difference in the Chinese university, as participants claimed there is no handbook or marking scheme distributed to them anytime for any course, and the assessment usually comes with a vague description and word limit, giving students more freedom to decide on a particular topic while in the meantime evoking more stress.

The teacher usually just gives an essay topic like 'write something related to the topics in this course' and a word limit, which you can go over with penalty, and that's it. There are no specific guidelines. (Interview 1, China)

Further, although some of the Chinese international students at the UK university reported language barriers in their writing of English assignments, it is the participants from the Chinese university who are writing in their first language that seem to struggle more due to the ambiguous instructions. As a countermeasure, they developed an effective strategy through building bonds with peers from the same and other cohorts to circumvent obstacles. Specifically, when selecting optional courses, students tended to avoid academics who gave general and vague teaching, and preferred professors who appreciated the value of criticality and cultivated it.

The professor from the Gender Studies influenced me a lot regarding criticality, as she stressed repetitively the importance of multiple perspectives, and she asked us to not jump into siding with men

or women, but to look at social issues from a broader and macro level. (Interview 10, China)

It was also pointed out that academics that went the extra length to nurture students' criticality were rare in the institution, and not everyone could enrol in their courses due to regulation on the number of students per course. This is similar to the UK participants' responses regarding the uneven performance of lecturers and tutors and the quality of feedback, whereas some feedback constructively lay out tips for being more critical, others were brief or generic. However, while this quote above portrays a neutral unbiased image of criticality that is in alignment with the cognitive paradigm that sees criticality as a reasoning skill, another student's interaction with her supervisor at the Chinese university showed sharp contrast,

My supervisor is the kind of traditional man, and is very respected in his field, and he carries this aura whenever he talks that makes what he says quite persuasive. Once I proposed a research topic to him that focused on gender issues, but he kind of doesn't care for any gender-related studies, said it is meaningless because children always like their mothers more than fathers, and lectured me in his office, somehow, I felt I was brainwashed because of that aura when he talks, and I changed my topic. (Interview 6, China)

Although generalizations or causalities cannot be established, it is worth noting that the authoritative and convincing 'aura' this supervisor emanates in talking is arguably associated with his experience and reputation in his field as well as his identity as a man. While both the female professor interviewee 10 mentioned and this supervisor have the potential to influence student's values and apparently research topics, interviewee 10's professor was described as calm and rational, whereas interviewee 7's supervisor was authoritative and even patronizing, implied by the phrase 'brainwash' and 'lecture'. While the view held by the male supervisor is debatable, what is more important is that academics' personal beliefs could constitute part of a hidden curriculum that students may feel obliged to comply with.

The hidden yet lived standard emerges through and is perpetuated by the entangled assemblage of the individual identity as a senior professor, a man, the physical space of an office or classroom, and the discursive constraints of being a good student that respects teachers with manners. Although students' dispositions matter in their interaction with academics and mediate how they respond to academic's values, and not every student is 'easily persuaded' as interviewee 10 later described herself, certain voices of criticality could be made more visible than others in circulation, implying that criticality in university can be exclusive and privileges certain groups, thus debasing the idea of higher education as a commercial good which students as customers and patrons have equal access to.

Therefore, the first section of findings showcases students' nuanced interpretations of criticality, attributed to the abstract nature of the concept itself implied by the philosophical underpinnings, and to the seemingly incoherent and unclear instruction within institutions. Despite certain courses providing sufficient support for students to develop criticality, the anxiety and distress tied up with feelings of lack of guidance are commonplace in both institutions, highlighting that criticality is felt, and it is likely these feelings could undermine students' enthusiasm toward inquiry. Further, the legitimate form of criticality in one institution could be multi-fold, with different

academics holding different viewpoints, in the midst of which arises the complex process of students interacting with and being influenced to various levels, yet there appear to be certain types of criticality that precedes others and are sanctified as 'right' and 'professional'. Overall, the criticality circulating within campus carries with it a sense of professionalism and is valued by all members of the community, yet no consensus is made regarding the particularities of the concept, which is further coloured by its exclusiveness, rendering the engagement with criticality a lived experience that is felt differently by each individual.

### **The 'Wrong' Criticality in Daily Life**

In sharp contrast to the close link between criticality and the general sense of professionalism, in daily life students' perception of criticality is two-fold. On the one hand, they are aware that the habit of thinking critically is permeating their social interactions with family and friends and playing a role in their decision-making, which is viewed in a positive light as it symbolizes the furtherment of personal growth.

It makes me reflect on some of my behaviour, for example, the posture of the cross-leg sitting, these are all influenced by a system of gender, because the subject of sociology actually looks at many small things in our lives with a critical thinking perspective. (Interview 11, UK)

Learning sociology sort of drives me away from my original career choice. I wanted to be a journalist before, but when I am reading some news articles, I keep thinking about how it could have cross-referenced, or explored another perspective to look more critical, what evidence it could have collected, I don't think it fits my thinking style anymore. (Interview 7, China)

Most of the participants from both institutions confirmed an alteration of perspectives after they became more critical through studying Sociology, as suggested by the quotes, and they agreed it made them more rational and calmer, especially compared to their old selves that were subjective and oblivious of the impact of the immediate environment and wider culture (Interview 3, China). Interviewee 11's quote resonated with the subjectivity/positionality element that presents in both paradigms that see criticality/critical thinking as a skill and as a contextualised experience, solidifying the humanist understanding of criticality. However, on the other hand, despite acknowledging the self-development fuelled by criticality, they also expressed a variety of feelings and emotions associated with demonstrating criticality in social contexts. For example, there are concerns about the unwelcoming role played by criticality in social interactions.

Many people in my daily communications use words that may bring about stigma, or some invisible discrimination, it's a bit awkward to hear it, but you can't just say it in person. It will make you look sensitive, condescending, a show-off that you have learned so much, so more often it makes me feel helpless to some extent. (Interview 7, UK)

A few days ago, I was talking with my friends about a sexual harassment news, I feel like their conversation with me was meaningless. In fact, what they wanted to express to me at that stage was

emotions, but I just was not getting it, as I was saying something else like what could lead to it, we didn't match each other and it made me feel a bit lazy to say it. (Interview 7, China)

This feeling of misconnection, helplessness, and even anger with friends and family is attributed to the lack of 'social science thinking' in others, as suggested by one participant. Although respondents may engage in social interactions that trigger their criticality in different ways, either by quarrels (Interview 2, UK), carefully rephrasing to avoid disagreements (Interview 4, China), or simply giving up making arguments and withdrawing from certain directions of conversations reluctantly in the quotes above, it is commonly felt that criticality can be a nuisance and disturbance to an otherwise peaceful chatter and solidary conclusion. However, while some participants expressed negative feelings about being misunderstood or holding back their real opinions, some simply saw not voicing criticality as a form in and of criticality, and willingly accepted their silence.

I sometimes felt that everything in the world can be forgiven, as I just feel that there is a reason behind everything, and there is a reason behind others' views, so I don't really want to fight like I used to (Interview 4, UK)

Everyone's environment is different, so their behaviour is different. There's no need to ask someone to be exactly the same as others, just do better within our own abilities. I don't have very strict requirements for myself as before, because now I know there are many things that I can't solve. (Interview 3, China)

While academic training of criticality requires students to analyse an issue from multiple perspectives and raises their awareness of the broader structural factors that shape individuals and influence the occurrence of events, the outcome extends beyond assessments within the discipline and into student's daily life. By linking others' differing opinions to their unique background, which is beyond personal control, students could bypass the frustration related to not being understood and convince themselves that they do not need to take all the responsibility to persuade others into thinking critically.

Further, while the above two attitudes towards criticality speak to the affective dimension of it as critical beings try to deal with the negative feelings associated, a critical eye is applied to daily life nonetheless, as the difference lies in whether the student willingly or reluctantly remains reticent. However, in some cases criticality is not only unwelcomed by people around critical beings, but sometimes by critical individuals themselves. Utilizing a critical perspective in daily routines with no break could be an emotional burden that drains out people's enthusiasm and love of certain matters or, more importantly, life in general.

After criticizing too much, you feel as if everything is being criticized, so what is truth and what we should pursue, there will be a sense of nothingness. When you think about sociology and its criticizing, you feel as if there is nothing constant and interesting in life anymore. I think it is good that we don't explain everything in an academic way, we should still enjoy life emotionally and don't let rationality affect you too much. (Interview 8, China)

Around one-third of Chinese interviewees talked about the importance of ‘separation’, which refers to intentionally separating one's criticality from emotions and judgements, to build a boundary between academic pursuit and daily life, and to constrain their understanding and exercise of criticality within the former only. While the extent to which this strategy lessens the negative feelings associated with being aware of one's criticality remains unclear, it shows an explicit rejection to see criticality as an interdisciplinary or generic skill, and it appears that some students may rather treat it in the way other subject-specific skills are treated.

While the quotes above show three different attitudes towards demonstrating criticality in social settings, it is worth noting that all of them are not as positive as students' account of the importance of criticality within the campus, although they recognised the overall personal development brought by embracing a critical mindset. Beyond the frustration encountered in social relationships, it is also likely that the material settings play a part. Although participants did not report explicitly how they perceive the possible impact of the settings, some of them did mention where the conversation happened, such as on the underground (interview 7, China). In this case, it can be speculated that in a variety of contexts outside of higher education, where the atmosphere is relaxed, public, and what is circulated is not associated with a high-stake standard, students are surrounded by an assemblage that signifies a non-formal setting and discourages serious critical discussion. Such contexts may even give students a feeling of ‘real life’, as interviewee 8 in the Chinese university suggested above, where it is natural that not everything has or needs to have a logical explanation and ambiguity, humour and evasiveness is the legitimate code for controversial conversation. The tendency of ‘stepping back’ and lack of clarity are produced by the comfortable material setting and in turn enhance participant's recognition of a comfortable place they are embedded in, which embodies the public's mutual understanding of what real life is. Therefore, the sharp contrast of feelings towards criticality between a higher education institution and social setting could be attributed to different social relationships as well as to the material settings.

In summary, this section captures the different sentiments and emotions of students towards demonstrating their criticality in daily life. While students from both institutions agree that criticality is beneficial to their personal growth and widens horizons, students' attitudes towards actively showcasing criticality in social interactions differ. Negative feelings such as dismay and frustration for not being on the same page with others in conversation and worries about provoking meaningless conflicts could render some students to withhold critical comments, while others may take a critical lens to the misunderstanding among social groups and convince themselves into calmness and detach from negativity. Additionally, a small number of students take it further to try to restrict criticality to academic pursuits in order to enjoy their life, highlighting the notion that criticality is affective and it could have an enormous effect on one's emotions. However, it is interesting that the last point of separation and restraint is only mentioned among Chinese students, whereas UK students' accounts of affective criticality focus on either the negativity around criticality or their strategy to accept and tolerate their difference from others.

## **Discussion**

The findings above suggest that criticality within and beyond campus can both be multifaceted, socio-material, and embedded, instead of being seen as a technical set of skills only. While students seemed to recognize the

importance of criticality, especially in terms of the role it plays in daily teaching and assessment, they complained about the lack of clarity in instruction and arguably different individuals had their own unique interpretation of criticality. This could be a reflection of the great number of definitions of criticality and critical thinking that are used interchangeably and the evolving priority of the cultivation of criticality over time (Zembylas, 2022). Some students pointed out the link between criticality and positionality and reflection, which resonates with Barnett's (1997) model of critical beings as people who reflect on their shortcomings, suggesting a divergence from the cognitive philosophical notion of criticality.

However, there are other students that seemed to understand criticality as a mechanically repeated action detached from the person, such as a string of refutations. This could be partially attributed to the lack of or ambiguous elucidation of criticality in teaching and assessment criteria, while on the one hand risks students not knowing what is really worthy of critiquing (Ahmed, 2014) and simply following the template, on the other hand causing stress and uncertainty among student bodies. Further, as the instructions are not clear yet demonstrating criticality is undoubtedly high-stake, it is likely that these students were merely performing to a standard they deemed professional. As MacFarlane (2016) defines it, performativity refers to student engagement with a specific belief or activity that is sanctified by the institution or wider structure.

The standard of such performance is fluid and emerges through the web of physical, interpersonal and discursive spaces that differs by individual. Specifically, the physical space of a classroom, an office, even a pen and paper (Danvers, 2016) could constitute a sense of professionalism and seriousness that instil the importance of criticality and performance into students. The interpersonal interactions students have with their peers and academics could further mediate their engagement with criticality, as being approved by a supervisor for complying with a certain standard of criticality could induce positive feelings and motivate students to repeat the behaviour. Further, it is argued by Ahmed (2010) that happiness and contentment do not have a universally fixed benchmark, but are prescribed as positive for us beforehand. Even if students do not wholeheartedly agree with the academics' views, the constantly present cultural discourse that favours mild-mannered students who show respect to teachers could strengthen the force with which academic's certain views circulate the campus, as this discourse can be seen in both institutions despite the Chinese institution may be arguably immersed in it to a greater extent. Therefore, students might become alienated if they do not live in the 'right' way and exercise the 'right' criticality again and again.

However, like most lived experiences, the understanding of the 'right' criticality could differ between different social groups, such as gender. The different interactions with a female and male supervisor described by Chinese students resonates with Ahmed's (2014) claim that critical beings are more likely to be described as a male who is willing to display his perspectives and does not withhold from potential debates, and is encouraged and rewarded for taking the role of 'enlightening' others, while females are prone to demonstrate criticality in a gentler way as publicly pouring personal judgements into the issue might weaken the validity of arguments. Beyond gender, other factors such as age, seniority, and reputation in the field could also have a significant impact on the credit students unconsciously give to a certain figure, which partially explains the differences in the power dynamics some academics build with students over others. Therefore, this study unpacks and examines the

complex intertwined elements that constitute what is usually passed on without questions as the ‘right’ form of criticality, where the marginalized voices and the impact of materiality that surrounds us are lost in the repetitive enhancement of certain dominant viewpoints.

On the other hand, students’ encounters with criticality in social settings beyond campus also resonate with the understanding of criticality that is affective, emotional, and emerges through the entanglement of different social, material and physical layers. Like the ‘right’ criticality, the ‘wrong’ criticality that students often tend to withhold from demonstrating in public is constantly shaped by the materiality critical beings are embedded in, in line with Fenwick and Edwards’ (2013) argument. The relaxed informal contexts diverge from the serious high-stake environment on campus and arguably could generate doubts about whether criticality, previously regarded as an asset to thrive in the academic context, is still needed. Although online learning settings were not brought up in the data, Sorensen’s (2009) account of how criticality is produced in different combinations of materials around us is valid.

On top of this, the link between the negative response and feelings received from speaking critically in daily conversations and the reduced demonstration of criticality further solidifies that although criticality is often seen as a cognition behind reasoning and logic, it can be driven by emotions. While positive emotions are felt after building a successful student profile with criticality on campus and encouraging students to repeat the behaviour, it can be surmised that negative emotions stifle students’ free expression of criticality. Besides, in regards to some participants’ accounts of willingly accepting other’s non-critical views as an embodiment of criticality itself, while this argument may be logical, it is necessary to explore whether this is a self-imposed argument to avoid negative feelings and alienation, as what is a socially acceptable response in daily communication is pre-fixed, and only compliance to it could generate the happy emotions of belonging (Ahmed, 2010).

Interestingly, as a result, while the data shows that students view criticality as transferrable and not discipline-specific as they think with it in discussion of all kinds of matter, some students wanted it to be specialist and non-transferable. Hence, in reflecting on the contentious specialist/generalist debate of criticality (Bailin and Siegel, 2002), this study suggests that rather than defining criticality as one thing or another, a more pressing issue might be that which side criticality should be on, for the benefit and wellbeing of critical beings involved. While utilising the ‘right’ criticality in different courses and assignments as a transferable skill might be desirable within the campus, it appears the legitimate boundary of criticality ends with the walls of the higher education institution, and students may want to leave it behind as they step into ‘real-life’ scenarios. By providing this angle, this study again points out the advantage of adopting a socio-material lens, as students’ choice regarding engaging in criticality hinges on the changing assemblages that surround them, which makes criticality affective, with different meanings in different contexts, and a unified understanding of the importance of a simple criticality in teaching in higher education might be inconclusive or ineffective if criticality in other forms and settings are not recognised.

## **Conclusion**

This paper drew on a comparative qualitative study that explored undergraduate students’ engagement and

feelings associated with criticality in the Sociology program at one university in China and the UK respectively. The findings pointed out that the instructions of criticality are ambiguous and participants from both institutions reported feelings of uncertainty and confusion when it comes to demonstrating criticality in learning and completing assignments. In light of this, recommendations could be made to higher education policy-makers and practitioners regarding improving the clarity of modelling for criticality, in the forms of giving out examples, rich elucidations, comparing a critically written piece of work and an uncritical one, etc. While it may be argued that self-learning is an essential element and desirable graduate attribute in higher education, and students should be allowed to freely explore the concept in their own space, student agency should not be ignored, which suggests that a certain amount of appropriate guidance does not forbid their independent inquiry, rather rendering it more effective.

Further, this study applied the socio-material lens in understanding criticality and critical being's experience in different contexts. The themes that emerged from semi-structured interviews suggest that broadly there is the 'right' type of criticality, which is the circulated form of criticality sanctified by certain groups within the campus and closely tied up with the definition of a successful student, and the 'wrong' type of criticality, which is the unwelcomed silenced criticality in daily communications. While students might welcome criticality of thought in their academic pursuits, they may not welcome criticality of expression in informal settings. This challenges the dominant interpretation of criticality as an academic logical reasoning skill or individual's contextualised experience that ignores the agency of the surrounding objects and relationships, and demonstrates the affective dimension of criticality. As this is a qualitative study and only two universities were involved, further research could be conducted to explore in more depth the potential influence of physical, political, discursive, and social layers on students' engagement with criticality and beyond. To recognise the complex composition of what could influence individual's experience with criticality and the role played by emotion could lead to an advance in the theoretical inquiry of what being critical means and the binary relationship of emotion/logic, as well as providing advice to how criticality is constructed and taught in education.

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