

Culture Contact, Adult Learners' Critical Thinking, and Critical Thinking Use | A Sociocultural Perspective on Adult Education

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Abstract

From a sociocultural perspective of cognitive development as a dynamic social activity, this qualitative study explores the experiences of students in higher education regarding culture contact. The goal is to understand how these experiences shape their cognitive abilities, with a specific focus on the development and use of critical thinking as a higher cognitive ability, as well as how they apply critical thinking skills in a different sociocultural context. Critical thinking is presented as an ability for adult international students to navigate cultural disorientations within diverse sociocultural contexts, aiming to ultimately improve their educational outcomes (Halpern, 2013). The findings reveal that students' interactions with diverse cultures in a different sociocultural setting shape their minds, behavior, and critical thinking abilities, leading them to adopt new and different strategies to overcome diversity.

Keywords

culture contact, critical thinking, critical thinking use, sociocultural perspective

Introduction

Adult education is a unique and complex process that can be affected by an extraordinary number of variables (Moore, 2010). Some of these variables are cultural aspects,

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past learning experiences, life experiences, personal problems, and the ability to think critically. To identify satisfying conditions for adult learners to progress mentally and socially, I explore (in this paper) how the cultural contact experiences of students in higher education shape their cognitive abilities, focusing on critical thinking and the way they employ critical thinking skills in a different sociocultural context.

It is widely accepted by educators, researchers, and policymakers that the main goal of adult education is the development of critical thinking skills (Brookfield, 1987; Candy, 1991; Kokkos, 2011; Lindeman, 1926; Mezirow, 1981; Raikou, Karalis, & Ravanis, 2017). Top research on the role of transnational and national education policies reveals that critical thinking (CT) is viewed as an educational policy, representing procedural knowledge linked to generic context-independent competencies. These competencies can be applied to a wide range of work and life contexts, with certain skills such as being “open-minded” and the ability to identify, clarify, and analyze a particular problem (Tahirsylaj & Wahlström, 2019).

Despite the attempts to create educational policies aimed at enhancing CT as a valuable life skill, there is still a lack of shared guidelines for promoting this skill (Manalo et al., 2013). Therefore, research is needed to address the experiences and needs of adult learners and inform them about current policies. It is crucial to understand the interaction of various factors that may impact the development and evolution of CT. Culture and culture-related factors are among the debated conditions that may influence students’ abilities and the utilization of critical thinking (Manalo et al., 2013).

From a sociocultural perspective, some authors have discussed cultural diversity in a multicultural educational context and its possible outcomes. For instance, Miller (1993) argues that adult development cannot be understood separately from the sociohistorical context in which it occurs. This developmental stance asserts that culture influences what people think about, what skills they obtain, and when they can apply these skills (Miller, 1993). Miller (1993) writes that different cultures include different kinds of tools (for example, verbal or non-verbal), skills (reading, mathematics, or spatial memory), social interactions (formal and informal interactions inside and outside the educational setting), and values (p. 390). He claims that this ultimately influences who people become. Moreover, sociocultural elements – such as race, class, gender, ethnicity, and sexual orientation – shape adult development and cognition (Chavez & Guido-DiBrito, 1999; Cross, 1995; Kroger, 1997; Merriam & Caffarella, 1999).

Considering the ideas discussed, this study takes a sociocultural perspective in order to understand the relationship between human mental functioning and cultural setting. It aims to illuminate how the cultural contact experiences of students in higher education shape their cognitive abilities, with a focus on critical thinking and how they utilize critical thinking skills in diverse sociocultural contexts.

Defining a sociocultural perspective

Lev Vygotsky (1987), a Russian theorist of cultural psychology, provides a more comprehensive description of social influences and human action that involve higher mental functions mediated by cultural tools and signs. A sociocultural perspective focuses on sociocultural activities as the fundamental processes through which human cognition is shaped. In other words, a sociocultural perspective seeks “to explain the relationship between human mental functioning, on the one hand, and the cultural, institutional, and historical situations in which this functioning occurs, on the other” (Wertsch, 1995, p. 3).

To describe the main tenets of sociocultural theory (SCT), I will refer to James Wertsch’s ideas from Vygotsky’s writings. James Wertsch studies language, thought, and culture. Some of his notable works are *Vygotsky and the Social Formation of Mind* (1985) and *Voices of the Mind* (1991). In his book, *Voices of Mind* (1991), he mentions the three basic themes that run through Vygotsky’s writing:

1. a reliance on genetic or developmental analysis, which includes studying historical phenomena as evolving processes and encompasses human development across all stages – from birth to death (Vygotsky, 1987, p. 64-65).
2. the claim that higher mental functioning in the individual derives from social life; it is gaining new strategies and knowledge of the world and culture through participation in group activities. This tenet has been illustrated by examining the interactions between individuals from various backgrounds (Scott & Palincsar, 2013).
3. the claim that human action, on both the social and individual levels, is mediated by tools, signs, and signs-semiotics such as “language, various systems of counting, works of art, writing, and so on” (Vygotsky, 1981b, p. 137). These means are, in fact, tools to facilitate the co-construction of knowledge and the means that are internalized to aid future independent problem-solving activity (Scott & Palincsar, 2013).

I have conducted this study, focusing more specifically on the second and third themes of Vygotsky's writings. These themes align most closely with the theoretical framework of my research on mediated cognitive development, particularly critical thinking influenced by culture and society.

One of the strengths of SCT is the fact that Vygotsky was interested not only in what more knowledgeable others (e.g., educators) brought to the interactions, but also in what the individual themselves and a broader cultural and historical setting (e.g., new sociocultural settings) brought to the interactions and how they shape the minds of individuals (Scrimsher and Tudge, 2003). Despite the positive influences of Vygotsky's theory on contemporary studies in education, anthropology, and psychology, there are also some weaknesses in this approach, such as what Wertsch & Tulviste (1992) refers to as Vygotsky's "Eurocentrism". He points out that although Vygotsky highlighted the relevance of historical differences in mental functioning, it appears that modern European cultural tools and forms are considered superior to those of other cultures.

I chose SCT for my research – firstly, for its relevance to issues in education (Moll, 1990) and, secondly, for alignment with my research on culturally mediated cognitive development and action. Moreover, applying SCT in a multicultural context with international students makes an ideal setting for the practical implications of this theory, and considering the significance of the domination of European and Western cultures in some societies and its outcomes like the colonization of culture among non-Western individuals (Kennedy, 2013), allows me to try to diminish issues such as Eurocentrism (as argued by Wertsch & Tulviste, 1992) by actively involving non-European international students. Additionally, the use of the sociocultural framework in this research can redefine the terms of culture, culture contact, and sociocultural interactions in a diverse setting.

Culture and culture contact from a sociocultural perspective

Culture and culture contact are two fundamental concepts in the presented study. Culture can be broadly defined as a "social system shared among its human constituents" (Spratt & Msengi, 2020). However, for the purposes of this study, I will focus on Vygotsky's conceptualization of culture in his sociocultural theory. Vygotsky emphasizes the role of culture in mediating human mental functioning. According to him, cultural tools such as language, works of art, writing, and mechanical drawings play a crucial role in shaping the flow and structure of mental functions

(Vygotsky, 1981b, p. 137). He argues that culture not only influences behavior, but also affects the functioning of the mind and contributes to the development of new narratives in the human behavioral system (Vygotsky, 1983, p. 29-30). However, according to Wertsch (1991), such actions cannot be mechanistically determined by these tools or the sociocultural setting. Instead, mediated actions and individuals are both involved in the process (Wertsch, 1991), and this allows for innovation among individuals due to their cultural diversity and heterogeneity. According to Scribner and Cole (1981), the heterogeneity of contexts addresses the possible differences among individuals and the way they employ cognitive skills – such as critical thinking skills – in various contexts.

Due to increased awareness among new scholars regarding cultural diversity, these ideas have had a significant impact on contemporary research. For example, when examining critical thinking as a social mental process, it is important to recognize that it is not universally applicable across all cultures and societies. Critical thinking poses greater challenges for certain cultural groups. For instance, some Asian student groups (e.g., Chinese and Japanese) have been described as more group-oriented, hierarchical, and less inclined toward critical thinking when compared to students from Western cultures. Western students, on the other hand, are generally seen as more individualistic, non-hierarchical, and critical thinkers (Manalo et al., 2013).

From the developed concept of culture in this research, culture contact refers to the interactions between individuals and groups from different cultural backgrounds within a single cultural setting, whereby the adaptation, exchange and transformation of meaning, knowledge, beliefs, behaviors, and habits may occur. The utilized conceptions of culture and culture contact allow me to explore and understand the experiences of students who have contact with people from diverse cultural backgrounds.

Critical thinking: from the cognitive/individualistic paradigm to a cultural interpretation

Within my attempt to understand the evolution of CT, I underwent a transition from its traditional individualistic perspective to a more culturally informed one. Through this process of integration, I explored and engaged in discussions regarding different theoretical frameworks in research in order to arrive at a comprehensive understanding of CT and its social and cultural dimensions that facilitate critical thinking in adults.

CT is the other main focus of my research. There is a concern about using critical thinking as a “buzzword” (i.e., a term that has different meanings and connotations, depending on the context). In fact, several authors from different disciplines and time periods have pointed out the lack of a consistent definition of CT as the main challenge in researching this field (Kahlke & Eva, 2018; Lipman, 1985; Pagán Castaño et al. 2023; Vaske, 1998). Moore (2013) argued that given the social significance of critical thinking, the growing interest in CT research, and the lack of consensus in the literature regarding its definition, it is necessary to gain a better understanding of this concept and how it has evolved over time. In the 1990s, many educators and researchers tended to define CT as a skill or set of skills that encompasses the subject’s ability for analysis, inference, evaluation, explanation, interpretation, and self-regulation. For example, Dressel and Mayhew (1954) and D’Angelo (1971) defined critical thinking solely as a problem-solving skill.

A broader definition of CT was elaborated in a two-year Delphi study, sponsored by the American Philosophical Association, involving 46 cross-disciplinary experts. This study revealed that CT also involves affective “dispositions” (Kwon et al., 2007). Kwon et al. (2007) suggested that critical thinking dispositions relate to consistent willingness and motivation to use such CT skills. This could be a first step toward a more complex and critical interpretation, but most of these authors remain within the same rationalist and objectivist paradigm. For example, Siegel (2015) describes a “critical spirit” as an essential component of CT which includes the ability to reason and evaluate the reasons but also “certain attitudes, dispositions, habits of mind, and character traits”. In fact, he argues that a person is a critical thinker if capable of thinking critically in all circumstances, neglecting the context that makes it possible (or hinders) to act critically. Based on the views that these CT authors have provided, both the skill-based view and skill plus dispositions view are individualistic, and I consider it a limited approach for my research because – from the sociocultural perspective – we should extend the concept of criticality beyond logicity. A SCT integrates the CT definition into the context, present situation, and social relations that sustain or hinder CT and, in the long run, would allow learners to think and act as critical thinkers.

Viewing critical thinking as a social and cultural concept, I refer to the cultural aspect of CT referring to Fox (1994), who argued that critical thinking has some important cultural components. In his conceptualization, critical thinking is a voice, a stance, a specific kind of relationship with texts and family members, friends, teachers, the media, and even the history of one’s country.

Along similar lines, scholars in adult education from the 1980s to the present, such as Shor & Freire (1987), Brookfield (1987), Atkinson (1997, 1998), Mezirow et al. (2009), and Freire (2018), assert that critical thinking (CT) goes beyond higher-order thinking. They view CT as a quest for understanding the social, historical, and political roots of conventional knowledge, with the aim of transforming learning and society. From a sociocultural perspective in education, criticality is dynamic (Freire, 2018). CT can be more of a social practice rather than a well-defined and teachable pedagogical set of behaviors (Atkinson, 1998), and the effective transfer of CT skills can be influenced by the social contexts, both previous and current.

Methodological approach and context

The objective assessment of CT has been criticized by some scholars. For example, Brookfield argues that if critical thinking is defined as a social process, then its assessment should also be a social process involving experiences and perceptions. He suggests assessing CT in a specific context. This entails studying the dimension of action, including both what students do and what they say (Brookfield, 1997). I found this approach to be a solution for the assessment process of CT in my research since it aligns with my research objectives, considering the particular context in which the participants of my research are actively involved in the research process. Therefore, I applied an ethnographic approach as this method considers what people do in a specific context and builds a deep understanding of the interrelations between cognitive, cultural, and communicational aspects of the social life of higher education learners (Leavy, 2020). Using the ethnography methodology, I focused on individuals' life histories and their lived experiences to understand their views toward the world and the way they analyze the world's phenomena.

The main aim of the research and research questions

The main aim of this paper is to explore how the culture contact experiences of students in higher education in order to understand how these experiences shape their cognitive abilities, specifically with a focus on critical thinking and how they employ critical thinking skills in a different sociocultural context.

My research questions are:

- a) How do international students in higher education experience contact with other cultures?
- b) How do the experiences of sociocultural contacts and contexts shape the students' cognitive abilities, critical thinking, and its use?

Participants

The participants of this study were experienced insiders, and their narratives can provide unique insights into the research question. I intended to listen to their stories, interviewing and observing them in a natural setting. Therefore, using snowball sampling, I selected a small group of four students who possessed the characteristics I was interested in (Cohen, Manion & Morrison, 2002). All of my participants were international students enrolled in a science course at the University of Milano-Bicocca in Milan, Italy. I chose this specific group to examine their experiences in a dynamic multicultural environment where English was the language of instruction and communication. While the participants were all non-native English speakers, they used this language in the classroom. Due to the diversity of nationalities and languages, the interviews were conducted in English.

Data collection

Due to the open-ended and interpretive nature of my research questions, I applied qualitative interviewing – which has become a widely used research tool in the human and social sciences, such as in education, and for collecting data in ethnographic research (Brinkmann, 2013). I conducted face-to-face, semi-structured, and individual interviews to obtain the interviewees' points of view and their relationship to life, as well as to understand their vision of the world (De Fina, 2019). The semi-structured interviews provided me with flexibility and improved the relationship between the interviewer and interviewee, which was key for the process of knowledge construction and building trust.

Focusing on the main objectives of the research, I used certain topics as guidelines for conducting the interviews. The students discussed their cultural experiences in both their current and past contexts, providing me with valuable insights into the participants' life experiences and how they have evolved over time in various settings.

During the interviews, I encountered challenges, such as participants refusing to share their experiences in Italy out of concern for their current positions. Despite the research procedures being regulated by ethical committees and participants signing consent letters, as well as using pseudonyms, privacy concerns still arose. One question consistently asked by all participants was: "Where are you from?". I responded, "From Iran". Being a foreign student seemed to instill a sense of trust and safety, as they felt they could share their experiences and life stories with some-

one who might have faced similar situations. Additionally, to safeguard the anonymity of the students, I opted to use avatars inspired by their nationalities instead of their real names.

Analysis of data

I used content analysis to interpret the communication of meaning and identify theoretical relationships. To do this, I implemented an iterative process in which concepts were reflexively developed, coded, analyzed, and interpreted (Altheide, 2001). In presenting my analysis, I first introduced a portrait of the participants, which was a synthesis of the information I had about the student and the position they took during the interview. I prepared these portraits to provide context for each student's narrative, considering their experiences as international students and the context of the interview itself, which revealed uniqueness for each of them. Then, I provided a selection of the most significant parts of the transcribed data, enriched with my interpretation for each participant. Finally, I discussed how these aspects addressed my research question.

My interpretation and discussion are evident throughout the analysis, and in the title that I have created for each conversation, I have summarized the most relevant information about the participant's social strategy, as narrated in the conversation. The ability to judge, evaluate, analyze, make decisions, and solve problems, as well as the desire to be well-informed (Ennis, 1985; Willingham, 2007) and the areas of agreement among approaches to CT, are also considered for valuable insights into the critical analysis of the participants' actions and statements.

Participants' portraits

Self-protecting Dayzi

Dayzi, 23 years old, is from the Philippines and her first language is Filipino. She is studying for her Master's degree on an international course at the University of Milano-Bicocca in Milan, Italy. Living in Italy is her first experience of living abroad. I contacted Dayzi through an exchange of text messages at first. She welcomed my invitation to participate in the research. She was living in the same residence, but I had never met her before that day. We did the interview in a quiet and friendly environment in my room. Dayzi asked about my nationality first, and she was interested in the cultural aspect of my research. She started the conversation by showing

me a photo of the geographical location of the Philippines and then described the country in detail to give me an insight into the diversity of its regions and languages.

It seems to me that our conversation builds a narrative in which she becomes reflective of her interactive experiences. This has made her think and analyze her cultural identity and contexts more than before, leading her to adopt a self-protective strategy of limiting her social interactions in order to stay safe.

John, who welcomes the surprising and interesting cultural diversity

John was introduced to me by a friend. I met him at the residence for the first time. I invited him to participate in my research, explaining its purpose, and he immediately accepted. We then scheduled an interview date and conducted the interview in the lobby of the residence, aiming to provide a friendly and relaxing atmosphere. John is from Guatemala and mentioned that there aren't many students from his country. He has had contact with various cultures and finds the differences very interesting and surprising. He welcomes diversity while also mentioning that he is getting used to certain differences, such as the language (Italian). At the time of the interview, John was 26 years old. His first language is Spanish, but he speaks English fluently as well. He pursued his Bachelor's degree in the United States, where he lived for five years. Currently, John is pursuing his Master's degree in an English course at the University of Milano-Bicocca in Milan, Italy.

From our conversation, I found out that John's social life is facilitated by his openness and interest in cultural diversity. Through active social activities, the student has gained cultural awareness, knowledge of the world, and developed perspectives.

Sociable Mao

I met Mao in a shared Italian language course. I told her about my research and how she could help me with it. We were living in the same residence. We scheduled an online meeting due to the COVID-19 pandemic. It was a formal interview. She confidently started the conversation with the statement: "I am very knowledgeable about cultural information because I have lived in various countries and experienced many cultures." Due to time constraints, we scheduled another interview session. In the first session of the interview, she provided me with some useful and interesting information, but she did not share her personal information, such as her age. Two months later, we conducted the second interview in-person. I invited her to my room, and we conducted the interview in a quiet and friendly environment. She told me about her relationships with her family and friends since childhood, as well as her

exact age. Mao shared many stories of her interactions with people from different cultures. She is a sociable woman, and her social relationships have been the most significant challenge in her life. It is evident that she has even made decisions about her education and career based on the satisfaction of her social interactions and life.

Mao is 38 years old. She was born in Japan and then grew up in Brazil. She identifies herself as Brazilian. She has been in Italy for more than a year. She has also lived in Australia. We conducted the interviews in the English.

She gave me the idea of going beyond the barriers of borders, societies, and cultures to seek happiness and joy, and also using the barriers and differences to improve herself mentally and functionally.

Mindful Victoria

I got acquainted with Victoria in our shared Italian language course. She was a stylish black girl. She agreed to participate in my research. On the day of the interview, she initially rejected a handshake and apologized, then she hugged me. We conducted the interview at the university campus, and despite the distractions on campus, Victoria provided detailed answers to all of my questions. She appeared confident and shared her experiences along with ideas and reasoning, which gave me the impression that she had thought about them beforehand. Due to the distractions, I suggested a second interview, which took place indoors. The second interview was more friendly than the first one and provided me with sufficient information. Victoria has a critical perspective on her new sociocultural environment. She describes the social and cultural issues she has encountered, analyses them, and ultimately decides on her interactions based on the result of her analysis. At the time of the interview, Victoria was 23 years old and had been living in Italy for more than a year, pursuing a Master's degree on an international course at the University of Milano-Bicocca in Milan, Italy. Living in Italy is her first experience of living abroad. She speaks English well and is keen on learning Italian.

I saw her attitude as, kind of, analytical because she thinks and analyses the issues thoroughly. Finally, she decides on her own way of living and communicating.

Analysis: How contact with other cultures in diverse cultural contexts shapes cognitive abilities and critical thinking skills

From the perspective of Dayzi's sociocultural experiences

Dayzi narrates some unpleasant experiences with her social and classroom interactions in Italy. She expresses a feeling of being unconfident in her social interactions.

She prefers to lead a safe and isolated life by taking a self-protecting approach to her communicative acts and behaviors, such as staying alone, having fewer social connections, and staying quiet in group talks and conversations.

Dayzi narrated her first unpleasant experience of contact with Italian people and with a different language, which is one of the basic categories to characterize culture.

“The day that I came here, at the reception there was a guard. He couldn’t speak English and it was so hard. I could sense him shouting and I think I cried that day because I didn’t understand anything, and it was like I had to stay in my room for 10 days. You can’t go out, but what about groceries? It was hard. It took a while for me to understand. It was a traumatic experience. It’s a sad thing. Uh. Because in the Philippines, I thought of myself. I was confident and my friends saw that. But when I came here, it was like all that confidence was crushed from day one.”
(Dayzi)

It seems that she expected to encounter or interact with an Italian receptionist who can speak English. However, the man only spoke Italian, a language unknown to her. She describes her first encounter as “traumatic” and develops a theory around it, suggesting that this experience has caused her to lose her confidence. She explains that she used to be a confident person in her own country, but things are different here.

In another part of the interview, Dayzi describes an aspect of Philippine culture regarding greeting habits, which she states is very strict. For instance, she mentions that using specific words to greet certain people, such as older individuals, is mandatory in order to show respect toward them. According to her, these words carry cultural significance, signifying respect and adherence to certain social norms. This provides an opportunity to compare and contrast her experiences in different cultural contexts. She continues:

“I think yeah, in a sense, well, Italians are also very respectful, but there is something like a difference. I think that I noticed, I wouldn’t say culturally, but I noticed people here tend to say ‘ciao’ to everyone. Like, when you see someone, say ‘ciao’. Ok, you don’t know them, but you greet each other. And that was something that shocked me because, in the Philippines, we don’t do that.” (Dayzi)

From the student’s point of view, the Italian way of greeting is a way of showing respect to everybody. I see the student’s experience as unexpected. I wonder if constructing a different perception about a specific behavior – a detail, indeed, but socially relevant like greetings – might be a first step toward cultural transformation.

She continues:

“I’m think about everything now; I must be careful about what I say and about what I do, so I’m more cautious about that. I think I got ‘personality-wise”. (Dayzi)

The narrative that Dayzi developed in our conversation revolves around a new need for self-protection. Due to the problematic contact with a new sociocultural setting, her habits – referring to both her actions and her self-perception – are changing. She reveals that she now engages in more thinking than before, contemplating things she never used to consider. Moreover, her attempts and strategies for finding solutions to her social and cultural challenges can potentially transform her into a critical thinker. Even though, in the course of action, she may not always choose the most justified one because – she says – she “should be careful” when she is with others, she prefers to be quiet. Most of the time, she chooses to stay in her room in the students’ residence and be alone in order to feel safe. I believe that precaution, isolation, and desocialization are not justified solutions to solving problems. Therefore, Dayzi’s self-protecting strategy could, in the long run, limit her learning opportunities, hinder her social-cognitive development, and restrict her ability to achieve a higher level of critical thinking – even if she claims to be thinking more than before.

From the perspective of John’s sociocultural experiences

John seems very enthusiastic about his international experience. He says:

“I had many opportunities to meet people from different places all over the world. It was very interesting - especially experiencing Asian culture. Specifically, I met a lot of people from Korea, South Korea, and Taiwan. I believe this further opened my mind to the outside world that I had never known before. There were many differences, such as food, which I think is the first thing that stands out, as well as the activities they do in groups, the games they play, and the things they watch. I was also surprised to see some American influence; I didn’t expect them to have similar things.” (John)

When discussing his experience with the diversity of cultures in a different socio-cultural context, he expresses interest and surprise. He identifies cultural aspects that contradicted his expectations, and then claims that his experience with cultural diversity has broadened his perspective on the world. His mind now extends beyond borders and beyond what he used to consider and know. Furthermore, this cultural contact has altered his perceptions of people with different cultural identities.

He continues:

“I remember when I went to the US, I was shy. I knew this was a new place, but I didn’t do a lot outside of my comfort zone. I was unsure about things, and it would be hard for me to decide. Also, I couldn’t do many things as I had made short-term plans. I met different people who were raised in different ways. They looked at things differently, and I was surprised by their perspectives.” (John)

Living in various sociocultural settings with diverse cultures has changed his personality, behavior, and actions, he says. He expresses a feeling of agency when he says: “Now I can make decisions and I can do things.” Additionally, when he starts most of his speech by using the phrase “When I was in...”, from my viewpoint, it reveals how he is reconsidering and recognizing the role of those different contexts. He is building a theory of himself as changed thanks to these important, effective experiences that have shaped his mentality and actions.

Based on the narratives, John’s enthusiasm and openness to cultural diversity facilitate his social life. From a sociocultural perspective, his participation in social activities contributes to his changing process and helps him gain knowledge about the world, culture, and new strategies. Among the strategies that John may develop, “awareness” is the most noticeable one, as he constructs his thinking and describes events in a narrative manner. While John can be associated with sociocultural transformation in his thought and cognition, I cannot confirm his critical thinking skills or consider him a critical thinker with a critical reasoning approach.

From the perspective of Mao’s sociocultural experiences

Mao tells stories about her experiences in an interaction regarding Japanese culture.

“In Japan, people live for work and don’t have a social life to enjoy - I’ve never accepted that. For example, one day I had training and I informed my boss that I couldn’t come to work because of it. He initially seemed understanding, saying it was okay. However, he was actually very angry with me and made me feel guilty for not being at work. In my role, I used to employ very creative materials, such as games and innovative lessons. I was able to accomplish everything in the most effective way possible. However, I was constantly under pressure, mentally exhausted, and experiencing a significant psychological burden due to the high expectations of the culture.” (Mao)

In her narrative, Mao criticizes the work-oriented Japanese culture. Then, she tells her story of the day she was absent from her workplace. She describes her boss’s

reaction to her absence as an example of culturally emerged behavior. On the other hand, she mentions how Japanese social and cultural interactions helped her improve her job skills.

Then, she talks about her experiences in her current sociocultural context – which is Italy.

“In Italy, they are always in groups – especially at university. Once, I went out to a bar with a group of Italians who were working on the same project. They invited me but then they excluded me. It’s not painful anymore, now that I understand it. Sometimes, they perceive us as strangers. I know some people who pretend to be open to international individuals. However, when I asked them if they had any international friends, they said no.” (Mao)

Mao defines herself as a sociable person. Her ideal social life is one with many friends and connections, but in Italy, she cannot fully experience it. She told me about the numerous attempts she made to establish meaningful relationships with Italian people and achieving what she desired in her interactions. She claims that her personality and thoughts have changed effectively during the years in which she has been living and learning abroad:

“I think I’m much stronger than before, even though I’m still struggling. Now, I’m strong. I can do more things and I’m capable of doing more things than before.” (Mao)

From a sociocultural perspective, we can see how the external processes of social life shape Mao’s actions and behavior, and how cultural tools and signs mediate her social mind. In terms of CT skills, Mao employs a critical strategy to describe the social and cultural issues that she has faced. Faced with sociocultural diversities, she formulates theories, makes claims, and passes judgments based on her beliefs – even if they may not be true. She is able to analyze her environment, identify her personal experiences, and reflect on how those experiences were influenced by cultural factors in each context. Mao demonstrates the ability to make reasonable decisions when it comes to determining the course of action, as she has made efforts to solve her problems in every possible way. This can be observed based on her statements in her real academic, social, and professional life. She can be identified as a critical thinker who employs CT skills when necessary.

From the perspective of Victoria's sociocultural experiences

Victoria describes her experiences with the new and current sociocultural context.

“People here smoke a lot because of stress. Everything is overwhelming. In my country, it’s becoming more common than in the past, but it is not something that is done everywhere. Older people and females don’t smoke as much, but it is common for young guys here. I think it’s because they are stressed. The education system might definitely play a part. Some people who are not in education may smoke, but most people start smoking in school, and that’s when the stress begins. It is difficult to quit smoking once it becomes a habit. I’m not sure, but I think so.” (Victoria)

The education system in Italy is different and more difficult than in Ethiopia, as Victoria describes. While she is adapting to the new environment and the more demanding assessment system, she faces the smoking habits of the Italian and – in general – European students, which is odd behavior to her. In such a situation, she analyzes and evaluates the causes and effects of smoking and relates it to the considerable stress put on students’ shoulders by the education system. This is, in her view, a problem that affects the entire life, not just education. From a sociocultural perspective, the process of analyzing and evaluating students resulting from their contact with a diverse sociocultural context can be understood as the development of advanced cognitive functions, like critical thinking ability. Moreover, the issue that she mentions reflects the interplay between personal experiences, sociocultural influences, and transformed behavioral patterns.

In another part of the interview, she states that:

“For example - in my country, when you look different, people notice, you know? But here, when you wear something different or have tattoos, nobody cares about it. You can dress very fancy or the same as a crazy person, and no one cares. Personally, I want to dress well. People here are more independent, and we can live here independently.” (Victoria)

In the dominant culture of her home country, people are expected to be attracted to others based on their appearance. However, in Italy, this is not the case for her. She mentions that people in Italy do not care about looks as much because they “are more independent”. Her sociocultural experiences in the new context have caused her to reflect on this issue of not paying attention to appearance. She has developed a new understanding of independence as not caring about appearance. According to her, she now lives and behaves independently. This can also be seen as a reflection

of her cognitive abilities, as well as her sense of agency and empowerment derived from her social life.

Therefore, it seems that the cultural challenges that Victoria faced have given her an analytical perspective. In this way, she thinks about everything and analyzes them while her thinking development is forming along this process. This is, in fact, what a sociocultural perspective suggests.

Discussion and conclusion

I undertook this study to understand how students' experiences of contact with other cultures shape their cognitive abilities, focusing on the development of students' critical thinking (CT) and the use of CT as a form of higher mental functioning. In this regard, I identified students' sense of growth and learning as a result of interactions with different cultures in a distinct social and cultural context, considering both the connections and disruptions with their past lives.

The findings reveal that students' experiences of their interactions with a diversity of cultures in a different sociocultural setting shape their minds, thoughts, critical thinking, and ideas. Moreover, this leads them to develop new strategies to overcome cultural diversity. For instance, when Dayzi encounters the greeting habits of Italian people, her attitude toward this cultural behavior changes from being limiting to being respectful. Additionally, her unpleasant experiences with language diversity in Italy impact her social life and thinking patterns. When John states that living and experiencing various cultural aspects, such as food and language, has given him new perspectives, a feeling of agency, and skills like decision-making, it highlights the transformative impact of cultural immersion on his personal growth. The process of shaping Mao's thoughts, behavior, and actions through her sociocultural life in different contexts is a progressive improvement, and Victoria's ability to analyze her current social behaviors and develop new cultural understanding and strategies to find solutions for conflicts in her mind can all be examples of the creation of new forms of behavior and changes in individuals' mental functioning through cultural contact.

When considering the enhancement and use of critical thinking in contact with diverse cultures, the findings reveal that although students are able to "think more" than before; their strategies do not always seem to involve the use of critical thinking skills. For example, Dayzi demonstrates a critical perspective when faced with social issues in a different sociocultural context, but in practice, she tends to rely on

self-protective strategies such as being cautious, isolating herself, and withdrawing from social interactions. These strategies are not associated with the use of critical thinking skills. As for John, although he can be identified with sociocultural transformation in his mental functioning, his approach to action, particularly in his educational stance, may contrast with the culturally-emerged problem-solving approach. According to Edward Said's idea of Orientalism (1979), the domination of non-European countries by European ones and the belief in the superiority of their cultures impose some colonial impacts. One example of these impacts is the use of the English language in schools. "For them, English is a language imposed on their mother tongue" (Said, 2001:558). Consequently, we assume that adaptation can be seen as another form of colonization.

The results reveal that the situation for Mao and Victoria is different. Mao used a critical strategy to describe the social and cultural issues that she faced. She analyses and reflects on her experiences that were influenced by cultural factors, and she makes reasonable decisions when it comes to the course of action in both educational and social contexts. This study identifies her as a critical thinker who uses CT skills whenever required. Regarding Victoria, her sociocultural experiences have given her an analytical perspective. She theorizes and analyses phenomena to come to a reasonable result and, in the end, she adjusts and forms her perspective and acts accordingly. The cultural viewpoint of this study and of CT, finally, emphasizes the formation of CT by students' social contexts, the role of their relationships with members of societies, and also the cultural and historical backgrounds of their host and origin countries in the way they employ CT skills (Fox, 1994).

In addition, I understand that all the experiences that students have gained, both pleasant and unpleasant, have led them to build cultural explanations for the perceived diversities. It seems that they have all developed a deeper cultural awareness and gained a critical perspective on the phenomena of the world. They have also developed different strategies, such as "awareness", "othering", "critical reasoning", and "adaptive strategies". For example, John talked about his experiences of interacting with people from different cultures. He said that the differences in cultures, the things that people do in diverse social and cultural contexts, and their different viewpoints of the world surprised him. This approach reveals a deeper cultural awareness and the opportunity to learn from it. Such as othering and critical reasoning that Mao develops, when she says: "I don't feel sad anymore, no, I don't. Now I got strong, I know *what to do* when I am with *them*" (Mao). It was

about her stories of being excluded or rejected by her Italian connections (“they excluded me”) or the analytical approach of Victoria, who analyses the social and educational issues and then tries to overcome them according to the results of her analysis. From a sociocultural perspective, individuals’ social lives play an important role in shaping their personalities, thoughts, and beliefs (Wertsch, 1991), and these social processes provide the basis not only for individual mental functioning development, but also for action and adaptation to new emerging conditions. This is what we require to think and understand ourselves, others, and the world. In other words, our understanding is shaped by the cultural contexts in which we interact with others and are sociocultural (Vygotsky, 1981a). Therefore, having more social connections in a broader multicultural context can provide individuals with developing new strategies and deepening their learning and understanding of the world (Scott & Palincsar, 2013).

The diversity of the ethnic identities of the participants in this research and the multicultural nature of the study context have provided me with reliable and nuanced results regarding the promotion of cultural awareness and the identification of spaces where these struggles can be expressed and resolved, such as an international educational setting. I would like to add that the process of forming and changing students’ minds through diverse sociocultural contexts is in progress. An adult person is constantly required to reposition and reframe their ideas and actions, relating to previous, present, and future contexts. This occurs within a dynamic world of relationships with society, the environment, oneself, and others – which are constantly changing (Formenti, Luraschi, & Del Negro, 2019). Consequently, my understanding and findings about the participants’ mind development, learning, and cultural experiences will probably change if I conduct the same exploration at a future date.

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