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Reflection and Reflexivity in Influencing the Developmental Trajectories of Ideal Multilingual Selves: A Longitudinal Qualitative Inquiry

Abstract

This study conducted a longitudinal inquiry into how reflection and reflexivity influenced the development of ideal multilingual selves (IMS). The Dominant Language Constellations (DLC) was adopted to understand the operationalisation and development of IMS and how students' reflection and reflexivity at different cognitive levels influenced the maintenance or development of their IMS. Five rounds of interviews and two rounds of written journals were collected from nine Chinese learners of German over 28 months. Findings suggested that most participants reflected on their multilingual experiences at lower cognitive levels, which could hardly maintain the vision of being multilingual longitudinally. In comparison, learners who continued to strengthen their IMS tended to demonstrate higher levels of reflection on multilingual experiences. They were also likely to activate more languages, including their first languages (L1s), in their DLCs during the reflective and reflexive process and identify the meaning of being multilingual for constructing their future selves. This research emphasised the significance of different levels of reflections and reflexivity in influencing the development of IMS and underscored the role of a holistic view of language in evoking higher-level reflective and reflexive thinking during LOTE learning.

Keywords: reflection and reflexivity, ideal multilingual selves, Dominant Language Constellations, language learning motivation, longitudinal qualitative research

Introduction

Amid the burgeoning research interest in learners' motivation towards being multilingual, the ideal multilingual self (IMS), which denotes learners' aspirations to become multilingual, has emerged as a subject of much attention (e.g. Henry, 2017; Peng & Wu, 2024; Ushioda, 2017; Zheng, et al., 2020). As Ushioda (2017) pointed out, the surging utilitarian value of English learning during the past decades has fostered the inclination to view language learning as an investment in terms of economic and social mobility. However, lacking a unique global status, other languages can hardly demonstrate the same instrumentality as English. As revealed by empirical studies (Gabryś-Barker, 2011; Wang & Liu, 2020), this situation is likely to dampen learners' motivation to learn a language other than English (LOTE). From this perspective, a shift of focus from the instrumentality of a particular language to the role of being multilingual in enhancing individuals' holistic linguistic and cultural competence can be pivotal in expanding our vision about the importance of language learning. Multilingualism, specifically, can be understood as a dynamic system in which different languages are not conceptualised as separate entities but are interdependent on and constantly interact with other languages (Jessner, 2008). The increasing attention to multilingual orientations in LOTE learning has led to the proposal of the IMS as a new theoretical concept to understand LOTE learning motivation (Henry, 2017; Ushioda, 2017). However, compared to the effort to examine the validity of IMS as a motivating construct in different cultural settings (e.g. Hajar, 2024; Henry & Thorsen, 2018), less attention has been paid to the maintenance or development of the IMS and the role of LOTE learning in this process, especially from a longitudinal perspective. While reflection and reflexivity have been recognised as important influential factors for self and identity development (e.g. Enkell, 2010), very few studies have investigated the role of these two processes in influencing the development of IMS. Despite the debates over the definitions over reflection (e.g. Brookfield, 1995; Van Manen, 1977), this construct

can be broadly understood as individuals' ruminations over and sometimes investigation of ideas, experiences, and circumstances (El-Dib, 2007). Reflexivity focuses on individuals' internal conversations in which they evaluate their positionings against situated contexts and closely relates to self-formation (Archer, 2007).

Situated in a Chinese context, this research entailed a longitudinal qualitative study to address this research gap. Five rounds of interviews and two of written journals were collected over 28 months to investigate the construction of nine undergraduate LOTE learners' IMS and how different levels of reflective and reflexive thinking influenced this process. The Dominant Language Constellations (DLC) approach was employed to study the operationalisation of the IMS and the languages activated, and the interactions between them, during the reflective and reflexive processes.

Literature Review

The accessibility and construction of the IMS

Drawing on Complex Dynamics Systems Theory (Cameron & Larsen-Freeman, 2007) and the L2 Motivational Self System (L2MSS) (Dörnyei, 2009), Henry (2017) argued that learners' motivation towards being multilingual can be conceptualised from a self-system perspective and proposed the concept of the IMS. IMS can be understood as language learners' aspirations of being multilingual in the future. It differs from ideal language-specific selves by underscoring the possibility that individuals may want to use the linguistic resources from the different languages acquired/learnt by them and proposing a more holistic view of understanding language learning motivation (Henry, 2017). The IMS can be viewed as constructed during a *self-organisation* process, through which lower-level properties interact and generate higher-level states without external control (ibid). Put differently, the IMS can be theorised as a higher level of cognitive state which emerges from the interactions between multiple ideal language-specific selves located at lower cognitive levels. According to Henry

(2017), the IMS is highly motivational, as it is developed based on individuals' real experiences and embody their deeply rooted values and passions. However, a review of empirical studies on this construct showed a more complex picture. On the one hand, the IMS can create "a context of meaning within which the ideal L2 self is nurtured" (Henry & Thorsen, 2018, p. 359) and play an important role in initiating (Zheng et al., 2020) or maintaining (Wang & Fisher, 2023) learners' LOTE learning motivation. On the other hand, it can be hard for individuals' IMS to fully realise its motivating potential in language classes (e.g. Wang, 2023). Such controversies around the motivating power of the IMS may partly lie in the difficulty in distinguishing ideal selves from vague fantasies, a commonly identified limitation with research on ideal language selves (Henry & Liu, 2023). Henry (2017) suggested that the IMS is motivating because it embodies rich personal experiences and feelings and individuals can experience the excitement when they imagine being multilingual. However, it seems challenging to capture the link between individuals' ideal future and current experiences in the operationalisation of ideal language selves (Al-Hoorie, 2018). Moreover, as the IMS is situated at higher cognitive levels and is highly abstract (Henry, 2017), it becomes even harder to differ this construct from fantasies and understand how it relates to individual current experiences in empirical studies.

To address this research gap, it is first important to discuss how ideal selves are *accessed* in learners' lives. A look at the theoretical underpinning of the L2MSS, namely, possible selves (Markus & Nurius, 1985), suggested that the accessibility of ideal selves is related to whether they can be activated in individuals' working self-concepts, a concept referring to self conceptions being active at the moment. This is because self-concepts are not fixed and monolithic constructs but dynamic across contexts (Markus & Nurius, 1985). Hence, only self-concepts activated in individuals' cognition just now are likely to strongly impact their behaviours. As the emergence of the IMS involves the activation of more than one language,

which distinguishes them from ideal language-specific selves, an investigation into the operationalisation of the former needs a close look at the languages activated in cross-linguistic interactions in individuals' working self-concepts.

In addition to how the IMS is accessed, it is also important to examine how it is *constructed* in relation to learners' current experiences. As mentioned before, the formation of the IMS involves a *self-organisation* process. This process, however, does not naturally achieve a stable equilibrium (Cameron & Larsen–Freeman, 2008). In the case of self, the emerged higher-level properties may not be effectively integrated into individuals' existing self systems (Nowak, et al., 2000). This may to some extent explain why some students gave up their IMS even if they entertained a multilingual future at the start of LOTE learning in previous research (Wang & Fisher, 2023). According to Nowak et al. (2000), through a *self-integration* process, the emerged higher-level properties become an integral part of individuals' self system, during which evaluative consistency needs to be realised between these properties and other aspects of the self system. Put differently, constructing IMS entails an evaluative process in which learners assess the possibility of incorporating this newly-developed self into their existing self-identification. The self-integration process is intimately related to individuals' current experiences, as they evaluate the consistency between the newly-emerged properties and their overall self-identification based on their ongoing interactions with contextual forces (Nowak et al., 2000). Therefore, an investigation into how learners construct their IMS in relation to their current language experiences will also be important for understanding the motivating power of the IMS, especially in the long term.

The role of reflection and reflexivity in accessing and facilitating the construction of the IMS

Regarding the factors influencing how learners access and construct their IMS in relation to their current experiences, reflection and reflexivity, through which individuals internalise personal experiences and channel them into their core beliefs and self-identification (Dyke,

2015), are the processes that need particular attention. According to Alexander (2017, p.308), reflection represents "the deliberation, pondering, or rumination over ideas, circumstances, or experiences yet to be enacted, as well as those presently unfolding or already passed". From this perspective, reflecting can be useful in eliciting learners' awareness of their multilingual experiences and enhancing the accessibility of IMS in their working self-concepts. Fisher et al.'s (2020, 2024) research, though from the lens of identity, already showed the role of reflection in helping learners recall their multilingual experiences and develop their knowledge of multilingualism. Reflexivity focuses on the internal conversations in which individuals weigh up different social and cultural perspectives and evaluate their practices and self-positioning in their situated contexts (Archer, 2007). Therefore, compared to reflection, reflexivity has a more explicit role in leading to individuals' self-formation. Existing research has already noted the effect of reflexivity in facilitating language learning (Clark & Dervin, 2014; Malinowski & Nelson, 2014). Forbes et al.' (2021) study particularly emphasised the role played by reflexivity in exploring and evaluating the possibilities of developing multilingual self-identification. Wu's (2023) research also showed that reflexivity in multilingual education shapes students' linguistic repertoires and develops their cosmopolitan outlook. Therefore, while reflecting may help learners access their IMS, reflexivity relates to evaluating the consistencies between these newly developed selves and other parts of their self system. Both can be potentially important for facilitating the self-organisation process of forming IMS.

Despite the attention paid to the role of reflection and reflexivity in developing multilingual selves and identities, research gaps still exist. Few studies have investigated how reflections and reflexivity at different cognitive levels in language learning influence individuals' self-identification with being multilingual. This is despite that psychological research showed that the impact of different levels of reflection and reflexivity on human behaviours and self-

positioning varies significantly (Gibbs, 1988). Hence, a more detailed examination of the reflections and reflexivity in the language learning process is important for understanding how learners' current language experiences are channelled into their future visions and assist in developing their IMS. El-Dib (2007) specifically proposed three levels of reflection. Reflections at the lowest level only involve "technical, habitual, subjective, rigid thoughts, feeling, and/or views" that others will likely guide (p.28). Reflections at this level are likely to be 'technical rationality' (Van Manen, 1997). They may reflect to learn how to deal with real-life problems, sometimes under guidance, but will not investigate the causes behind the issues. Those at the second level occurs when individuals realise "the subjectivity of knowledge, the relativity of truth, the multiplicity of sources of knowledge and the importance of context in determining meaning" (ibid). Therefore, individuals demonstrate more autonomy and agency in evaluating different perspectives of knowledge at this level of reflection, which involves investigating the formation of their experiences/existing problems and situating the experiences/issues in wider contexts. Reflections at the highest cognitive level entail critiques of one's beliefs, values and the moral assumptions underlying his or her practices. In other words, individuals may question and reshape their beliefs or preexisting values through this kind of reflection. This level of reflective thinking may also relate to individuals' visionary inclinations (ibid), namely, prospective reflections addressing their future actions. As reflexivity involves weighing up different social and cultural perspectives that individuals develop in their interactions with situated contexts and is intertwined with the reflective process (Feucht et al., 2017), different levels of reflections can also lead to varying degrees of reflexivity. Based on the typology proposed by El-Dib (2007), this research led an in-depth investigation of the role of reflection and reflexivity in accessing and influencing the construction of the IMS.

Researching the role of reflection and reflexivity in influencing the development of IMS from a DLC perspective

A DLC approach was selected to investigate the role of reflection and reflexivity in influencing the construction of the IMS in this study. A DLC refers to "a group of one's most important (vehicle) languages, functioning as an entire unit, and enabling an individual to meet all his or her needs in a multilingual environment" (Aronin, 2016, p.146). Compared to a language repertoire that looks at the totality of languages individuals use, a DLC only addresses the most expedient languages they access (Aronin, 2020). Put differently, the DLC includes "an active, working part of the pool of language repertoire" and looks at the concurrent use of languages most salient in an individual's mind at a particular time (Aronin, 2020, p.27). The DLC approach is effective in revealing the complexity of multilingualism by investigating the constitution (i.e., the languages that comprise a particular DLC) and configuration (i.e., the role of each language in the DLC) of a DLC (Lo Bianco & Aronin, 2020). Siridetkoon and Dewaele's (2018) on ideal L2 and L3 selves has already shown the necessity of addressing the interactions between different language-specific selves when studying learners who are learning multiple languages simultaneously. Hence, the DLC approach allows this study to capture the languages presently active in individuals' working self-concepts and their interactions when learners access their IMS.

Moreover, as mentioned before, reflections and reflexivity may help channel learners' current language experiences into future visions. The depth to which individuals reflect is related to how they ruminate on their current language experiences, especially multilingual experiences. Therefore, an inquiry into learners' language experiences, particularly multilingual experiences, activated in the reflective and reflexive process and how they influence the depth of individuals' reflection and reflexivity is also necessary. The DLC approach can enable this research to look at the languages activated (constitution) and their

potentially different roles (configuration) in the reflective and reflexive processes of language learning. This contributes to a deeper understanding of different levels of reflections and reflexivity and how they influence the accessibility and construction of the IMS. Moreover, as Aronin (2020) pointed out, DLCs, focusing on the expedient languages that individuals access, can capture the dynamics of how linguistics recourses acquired by individuals work as a whole to influence their language use across contexts. The DLC perspective, therefore, also helps to investigate how individuals' reflections and reflexivity in different contexts may influence their IMS.

In short, this study investigated the role of reflection reflexivity in accessing, and influencing the development of, the IMS from the lens of DLC. Three research questions informed the research:

1. How did the developmental trajectories of the LOTE learners' IMS look like over 28 months?

2. What were the roles of different levels of reflection and reflexivity in accessing, and influencing the development of, LOTE learners' IMS?

3. What were the constitution and configuration of learners' DLCs active during the reflective and reflexive process and how did they influence the depth of learners' reflection and reflexivity?

Methodology

Research site and participants

This study led a longitudinal qualitative inquiry into the role of reflection and reflexivity in developing LOTE learners' IMS. This was part of a larger research project investigating the construction of LOTE and multilingual motivation. The study was situated in a public university in China and enrolled undergraduate English majors who were required to learn a LOTE as participants. The compulsory LOTE course lasted four semesters and occurred

twice a week. It focused on developing students' LOTE skills, cultural perspectives, and multilingual awareness. In the target university, five languages (Japanese, Korean, German, French and Spanish) were provided for English majors to choose from. This study enrolled students who had chosen to learn German as their LOTEs. This is because the author could speak German and deepen the discussions on German learning with participants. Moreover, based on the first phase of the larger project (closed-ended and open questionnaires delivered to the whole class at the beginning stage of the students' German learning) before this study, it was found that although the main reason for participants to start learning German was the course requirements, approximately 76% of them reported that their aspirations of being multilingual were important motivators for their German learning. However, according to the teachers' experiences, despite students' initial enthusiasm, it was not always easy to maintain their multilingual postures from a longitudinal perspective. It was especially difficult to sustain German learners' motivations across the two years. This situation made a longitudinal investigation into the development/decline of these learners' multilingual selves important.

There were 26 students (23 female and three male students) in the German class, and the author recruited all the nine participants (eight female and one male student) who were willing to join this longitudinal study. All the participants were in their early 20s when the fieldwork began. They spoke Mandarin as their L1s and learned English for over 10 years. None of them had experience learning a LOTE before starting the compulsory course. All the participants regarded being multilingual as part of their LOTE learning motivation in the questionnaire. Data collection took place from five months after the start of participants' LOTE learning to nine months after the completion of the compulsory course (28 months in total). Therefore, this study investigated how participants' IMS developed during the course and whether they could sustain such motivations afterward.

Data collection and analysis

Given the exploratory nature of this study, semi-structured interview was adopted as the main research method for this study, as it could generate new understandings during the interactions between researchers and participants (Silverman, 2022). Five rounds of interviews (average 40 minutes) were conducted across 28 months. The first three rounds were conducted in the first year of the fieldwork, at intervals of three to four months. This was due to the assumption that learners' IMS could have changed quickly at the start of their LOTE learning and to the practical reason that the author was based in the university during this period. The fourth round of interviews took place nearly four months before the completion of the compulsory course and the last round six to nine months after participants had completed the course. All the interviews were conducted in Mandarin based on the participants' preference. All the interviews started with questions about participants' recent LOTE learning experiences, efforts on LOTE learning, and underlying motivations. Notably, as this study specifically focused on learners' IMS, only the data concerning their multilingual motivations had been used for analysis for this study later. After these three questions, the author followed up on the responses regarding their multilingual posture and the formation of such posture. Based on the first two interviews, the author identified the potentially essential role of reflection and reflexivity in shaping participants' IMS. This topic had been broached in the following three interviews. The interview guide is attached in Appendix A.

The participants also completed two rounds of written journals (averagely 170 words), one after the third round of interviews and the other after the fifth, to answer all the research questions. Participants were asked to discuss 1) their LOTE learning experiences, 2) their LOTE motivations, and 3) the formation of such motivations in the journal. Written journals complement interviews because they gave participants sufficient time to consider their

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experiences and motivations and, particularly, helped to elicit their reflective thinking (Lew & Schmidt, 2011). Table 1 summarised the data collection procedures.

<Please insert Table 1 here>

The collected data was later transcribed and anonymised. Each participant was assigned a pseudonym (e.g. Xiaozhuang). Data were coded in Mandarin. Only the quotes needed in this paper were translated into English by the author who qualified Chinese-to-English translation. Backward translation was used to enhance the accuracy. 10% of the back translation was done and discussed by the author and another qualified Chinese-to-English translator and the rest by the author alone. To achieve the aims of this study, the analysis focused on the development of participants' IMS and the role of reflection and reflexivity in this process. Both inductive and deductive approaches were adopted while developing codes for interview and written journal data (Silverman, 2022). As for RQ1, the multilingual motivational self system (Henry, 2017) was used to theorise learners' multilingual motivations and the L2MSS (Dörnyei, 2009) was to develop codes for capturing the elaborateness and accessibility of IMS. The DLC approach was also employed to investigate the elaborateness of IMS about how participants could explain the constitution and configuration of the DLCs activated in their IMS. To answer RQ2, El-Dib's work (2007) was visited to develop codes for reflections at different cognitive levels (see Table 2).

<Please insert Table 2 here>

During this process, the author realised that the participants' reflection and reflexivity levels were related to the specific languages activated during the reflective and reflexive process. The DLC approach was thereby adopted to develop codes for the languages activated in different types of reflections and reflexivity to answer RQ3. After the generation of initial codes, axial coding (Saldaña, 2021) was conducted, and three major themes in response to the three RQs were generated. Table 3 summarises the coding process.

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The data collection and analysis followed the institutional and BERA ethical guidelines (BERA, 2018).

Results

Data analysis suggested that in the initial stages of their LOTE learning, all the participants entertained a future of being multilingual. This ambition, however, was likely to diminish, especially after the completion of the course. Only three out of the nine participants reported to maintain their IMS by the end of the fieldwork. The depth of their reflections and reflexivity influenced the developmental trajectories of their IMS. Participants who held a holistic view of languages and activated their L1s in their DLCs when engaging in the reflective and reflexive process were more likely to achieve higher-level reflections and reflexivity.

The developmental trajectory of participants' IMS

Difficulty in accessing and developing IMS longitudinally. All the participants reported being interested in becoming multilingual at the beginning of the fieldwork. However, their visions of being multilingual were vague and could not be described in detail. Two examples were cited below:

> I must be very proud of myself if I am multilingual. (…) But this is a vague
>
> ambition. (Interview-1-Yidan)

> Being multilingual will be helpful in the future.
>
> The researcher: Could you be more specific?
>
> Haoran: Eh, a multilingual person looks cool. (Interview-1-Haoran)

Therefore, the participants entertained a multilingual future, but such visions remained vague at this stage. From a DLC perspective, they could hardly explain how the linguistic resources

acquired from different languages worked together in the multilingual scenario, rendering such visions more like fantasies than concrete ambitions.

Participants' IMS appeared to be strengthened when their LOTE learning deepened, based on the data from the second and third rounds of interviews and the first round of written journals. Seven participants suggested being more interested in "building up their multilingual competence" in the future, and six of them had clearer understandings of the roles played by the linguistic resources they acquired from different languages in their future, as exemplified below:

> I became more motivated to become interculturally insightful by being multilingual. Learning English has broadened my cultural horizon and learning German gives me another perspective to understand culture more critically. (Journal-1-Haoran)

This excerpt shows that Haoran started considering the role of English and German in developing her cultural perspectives. From a DLC perspective, it seems that English and German were both activated when she accessed her multilingual future, which enhanced her German learning motivation.

Despite these positive changes, however, six participants would not frequently think of a multilingual future in their lives, indicating the limited accessibility of their IMS. Qi reported, for example, "Our teachers always remind us of the value of being multilingual. Although this future is exciting, it is far from my current life (Journal-2-Qi)". Therefore, the contexts in which Qi was situated did not seem to provide sufficient clues for her to attach personal meaning to being multilingual in the future. The phrase 'far from' suggested that the IMS did not appear frequently in Qi's working self-concepts. Other four participants also reported this situation. Yidian and Kuaizai mentioned they did not "usually imagine being multilingual" outside the German class.

The difficulty of accessing the IMS might have dampened participants' ambitions of being a multilingual person. Six participants became pessimistic about becoming multilingual from the fourth round of interviews, as exemplified below:

> After so long, I still find 'being multilingual' far from my life. I am uncertain about what being multilingual means to me. (…) I may not continue to learn German after meeting the course requirements. (Interview-5-Kuaizai)

Therefore, the difficulty of accessing a multilingual future restricted Kuaizai from integrating the vision of being multilingual into her self-identification. Moreover, as her motivation to learn German was closely related to her IMS, this change compromised her persistence in German learning.

Participants with developing IMS. While most participants' IMS ran the risk of disappearing before or after completing the compulsory course, three strengthened their IMS during the learning process. Compared to their peers, they were more able to access their IMS in and outside the class and incorporate being multilingual into their self-identification, as reported by Juanlian:

> Juanlian: Being multilingual broadens my cultural perspectives. Previously, German and British cultures were the same to me. Both are Western cultures. But by learning German, I have deepened my understanding of cultural diversity.
>
> (…)
>
> The researcher: Do you still find a multilingual future far from your life?
>
> Juanlian: No, I can see opportunities that require me to be multilingual.
>
> (Interview-3-Juanlian)

This excerpt shows that Juanlian had a relatively elaborate IMS. From the DLC perspective, German and English were activated to broaden her cultural repertoire. Moreover, such a future

seemed more accessible in her working self-concepts than her peers, indicating a more concretised IMS.

It is also notable that compared to other participants, these three participants continued to learn German after completing the course, mainly because they had integrated IMS into their overall sense of self. For example, Xiu said in Interview 5, "Being multilingual will enrich my life experiences, and I will continue learning German."

The role of reflection and reflexivity in accessing and influencing the development of the IMS

A deeper investigation into the data showed that participants' reflections and self-reflexivity during the LOTE learning might have influenced how they accessed and developed their IMS.

Guided routine reflections: Lower levels of reflection and reflexivity influence the development of the IMS. When probing into the reasons behind the limited accessibility of IMS in six participants' learning, the lack of in-depth reflections on language experiences outside the LOTE class emerged as an important theme since the second interview. First, although all the participants reported having reflected on their language experiences, especially cross-linguistic interactions, such reflections always occurred in routine reflections under teachers' guidance in class. Therefore, these reflections, though developing participants' interest in being multilingual, did not help them access their IMS outside the class, as shown below:

> The researcher: Why do you find it hard to imagine being multilingual?
>
> Yidian: Because it is far from my life. I mainly reflect on the interference
>
> between languages when our teachers ask us to do so.
>
> (Interview-4-Yidan)
>
> Haoran: I mainly reflect on my language experiences when the teachers ask
>
> us to compare different languages.
>
> The researcher: How do you feel about these experiences?

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Haoran: Very interesting. They made me think that it would be great if I could play with languages in the future.

(Interview-3-Haoran)

The excerpts clearly show that participants' reflections on language experiences, especially cross-linguistic ones, did help to activate a multilingual future in their working self-concepts in class and gave them a taste of the enjoyment emerged from being multilingual. However, such reflective thinking mainly occurred under teachers' requirements, which seemed to limit the students' scope of the value of being multilingual within the learning context.

Additionally, most of the participants' reflective experiences remained relatively low cognitive. As shown above, Yidian and Haoran's reflections on multilingual experiences were more like routine reflections based on teachers' guidance. Another four participants admitted that they "just did a quick reflection on the mutual influences between languages when required". There was no evidence that they had more critical reflections, such as how multilingual experiences influenced language use.

When participants' reflections on multilingual experiences were mainly related to the context of language learning and at a lower cognitive level, it also seemed to make it hard for them to positively evaluate the possibility of integrating being multilingual into their ideal selves during reflexivity. In this study, except two participants who were not found to engage in the reflexive process when learning German, four of the rest could not establish the link between being multilingual and their self-development. Haoran reported, for example:

Reflecting on and comparing different languages when learning German is interesting. But I still wonder what being multilingual means to me. I mean, noticing the interference between languages benefits my language learning. But what is the value of being multilingual in our society? (Interview-5-Haoran)

Therefore, as Haoran's reflections on cross-linguistic interactions were limited to the LOTE class, she could only associate the value of being multilingual with language learning and could not see its value in the wider social context. This negatively influenced her ability to develop her IMS.

Emerging deeper retrospective/prospective reflections: higher levels of reflection and reflexivity in facilitating the development of IMS. Although six participants were found to reflect on multilingual experiences at relatively low cognitive levels, the other three reported reflecting on these experiences more deeply and frequently outside the classroom. This seemed to help them access their IMS and positively evaluate the integration of being multilingual into their future selves.

Rather than only reflecting on cross-linguistic interactions under teachers' instructions, these participants carried out reflections regularly in and outside the LOTE class. This practice activated IMS in their working self-concepts more often and seemed to help them consolidate their beliefs in the value of being multilingual. The following two examples demonstrate this situation:

> I always reflect on my multilingual experiences after class. For example, more expressions address family relationships in Chinese, probably due to our traditions. Comparatively, the German language has more expressions that relate to loneliness. (…) I can become more accurate in my expression if I am multilingual. (Interivew-4-Xiaozhuang)

> I always pay attention to how language learning changes my life. I once reflected on how to show politeness in the three languages and realised that being multilingual can enhance my communicative competence. (Journal-1-Juanlian)

As shown above, neither participant only did reflections when required by their teachers. Instead, they attended to their multilingual experiences outside the class and investigated how these experiences reshaped their overall linguistic competence. They also seemed to conduct the reflections at a higher cognitive level, as both participants compared different linguistic and cultural perspectives and reconstructed their understandings of social and cultural affairs. These practices helped the participants access their multilingual selves more often in more aspects of their lives, contributing to concretising their imaginations of a multilingual future.

Two participants also showed evidence of prospective reflections on their multilingual experiences. Xiu reported, for example:

> When I compared my writing in Chinese and English, I deepened my understanding of the differences between writer-friendly and reader-friendly writing. As I want to be a writer in the future, I will need to know different writing styles. (Interview-5-Xiu)

Therefore, Xiu's reflections on cross-linguistic interactions were future-oriented, which helped her realise the link between being multilingual and her future development.

With reflections in more width and depth, these participants were also more likely to positively evaluate the meaning of being multilingual against the wider social context when engaging in the reflexive process. Juanlian suggested, for example,

> I became more convinced of the value of being multilingual. Although my German proficiency is still limited, I can already benefit from being multilingual. My friends have similar experiences. Being multilingual is not so far from my future as I used to think. (Journal-2-Juanlian)

Hence, when reflecting on her and her friends' multilingual experiences, Juanlian positively evaluated the value of multilingualism in her context and recognised the alignment between being multilingual and her future life.

DLCs activated during the reflective and reflexive process

A closer look at why the participants showed that the differences in the levels of reflection and reflexivity were related to the different patterns of DLCs elicited in the reflective and reflexive process. Specifically, when the six participants who could not deepen their reflection and reflexivity in the LOTE learning process discussed their reflections on language experiences, they mainly focused on the interactions between English and German, partly due to their teachers' influences in class, as exemplified below:

> Haoran: Our teachers always ask us to compare English and German in class.
>
> The researcher: Do you reflect on any mutual influences between German and other languages, e.g., Chinese, or languages in general, in or outside the class?
>
> Haoran: Why do we need to compare German and Chinese? They are too different, and such comparisons cannot benefit my German learning.
>
> (Interview-2-Haoran)

Therefore, only German and English appeared active in Haoran's DLCs when she reflected on her language experiences, mainly in German classes. In this DLC, German was located at the centre. English worked as a reference system for her to develop knowledge in German, and the entire DLC was operationalised to facilitate the participants' German learning. Such reflections, however, seemed to limit the scope of reflections to the context of LOTE learning and could hardly help Haoran to evaluate her language experiences, especially multilingual ones, more critically and comprehensively. This may help to explain why most participants only conducted lower-level reflections, which could hardly help them relate their current experiences to IMS.

Admittedly, six participants also noticed the interplay between other languages in their holistic repertoires. But half of them held a separatist view of language and did not entertain reflective and reflexive attitudes towards these experiences, as shown below:

Qi: Learning German and English influences my understanding of my culture.

The researcher: What do you think of these experiences?

Qi: Interesting. But I do not need to enhance my Chinese by learning foreign

languages.

(Interview-4-Qi)

Therefore, although Qi noticed the influence of being multilingual on her cultural competence, she seemingly undervalued these experiences and only regarded them as beneficial for her Chinese. This indicated that she held a separatist view of language and did not realise the role of LOTE learning in expanding her holistic linguistic repertoire. This might have also lowered the possibility of integrating being multilingual into her future ambitions.

Comparatively, the three participants who held more reflective and reflexive attitudes towards multilingual experiences demonstrated a more holistic view of languages. They appreciated the linguistic resources acquired from all three languages and were more likely to activate their L1s in various contexts during the reflective process. The pattern of DLCs elicited in their reflections was found to be dynamic, as reported by Juanlian:

I always reflect on my multilingual experiences, for example, when I

compare English and German to learn new German words or use the three

languages together on social media. These experiences helped me

understand how multilingualism can enrich my life under different

circumstances.   (Journal-2-Juanlian)

Therefore, compared to her peers, Juanlian reflected multilingual experiences, including the activation of Chinese in her DLCs in different contexts, e.g., language learning process and posts on social media. Involving Chinese in reflection and reflexivity added to the dynamics of the DLC patterns elicited in the reflective process and expanded learners' scope of the scenarios in which multilingualism played a role. According to Xiu and Juanlian, Chinese and English

were more frequently used, so it was easier for them to "accumulate and reflect on multilingual experiences" when Chinese was considered.

The elicitation of Chinese in these participants' DLCs during the reflective and reflexive process, to some extent, explained the emergence of reflections at higher cognitive levels, as their deeper knowledge of Chinese language and culture enabled more critical engagement with evaluating the value of multilingualism, as exemplified below:

> If you ask me why I became more eager to be multilingual, I should say that the interactions between my Chinese and other languages play a more important role, due to my deeper understanding of Chinese. (…) If I merely focus on English and German, I may only notice some superficial things.
>
> (Interview-5-Xiu)

Therefore, with her deep knowledge of Chinese language and culture, Xiu seemed more likely to deepen her understanding of being multilingual when activating her L1 during the reflective and reflexive process. In other words, although German and English also played an important role in her DLCs when reflecting on language experiences, Chinese can be useful in eliciting deeper and more critical reflections. Therefore, rather than only being a reference system to German learning, Chinese activated more scenarios of switching between languages and enabled higher levels of reflections in the participants' DLCs. This helped the participants to access their IMS more often and obtain more opportunities to evaluate the integration of being multilingual into their future selves at the reflexive stage.

Lastly, in addition to their multilingual experiences, it was also interesting to note these participants constantly reflected on how to understand linguistic competence and multilingualism during the learning process. Their renewed understanding helped them better evaluate the value of multilingualism in their personal development. Xiu reported, for example:

I used to think multilingualism meant proficiency in multiple languages.

However, after reflecting on my language experiences, I realise that though

my proficiency in German is still limited, it has expanded my linguistic and

cultural perspectives. This makes me feel that a multilingual future is

possible.

(Interview-4-Xiu)

Therefore, participants' deep reflections on the meaning of linguistic competence and

multilingualism helped them re-evaluate the extent to which they needed to develop

proficiency in German before considering themselves multilingual. These reflections made it

easier for learners to appreciate their progress in the LOTE learning and firmed their beliefs in

the plausibility of realising their IMS.

Discussion

A review of findings suggested the crucial role of reflection and reflexivity about

multilingual experiences in accessing developing language learners' IMS. It is also notable

that experiences that activated more languages in learners' DLCs, particularly their L1s,

seemed more likely to initiate higher levels of reflection and helped learners maintain or

develop their IMS.

This research first shows the importance of reflection and reflexivity, especially those at

higher cognitive levels, in helping to channel learners' current multilingual experiences into

imaginations of an ideal multilingual future. The findings demonstrate that even lower levels

of reflection on multilingual experiences could develop LOTE learners' positive feelings

towards a multilingual future, which, as Henry (2017) suggested, laid an essential basis for

developing IMS. However, such guided routine reflections did not appear to support the

maintenance of learners' IMS in the long term. This situation may partly be because learners

could hardly activate their IMS in other aspects of their lives except for the context of LOTE

learning. Consequently, these participants seldom accessed the vision of being multilingual in their working self-concepts. As Markus and Wruf (1987) pointed out, the lack of accessibility of self-conceptions can inhibit these conceptions from developing into concrete ideal selves. Moreover, reflections at lower cognitive level also seemed to limit participants' possibility of developing self-reflexive attitudes towards being multilingual or recognising the value of multilingualism beyond the LOTE learning context. Reflexivity, which involves a thorough evaluation of the value of multilingualism, however, has been listed in Fisher et al.' (2024) and Forbes et al.' (2021) research as a key factor that influences the cultivation of individuals' identification with being multilingual. The underlying reason may be that only reflections with critical judgment can elicit the self-reflexive process in which individuals evaluate their positionings in their situated contexts from different perspectives (Dyke, 2015).

In contrast, LOTE learners who regularly conducted more autonomous and in-depth reflections on their multilingual experiences were more likely to develop their IMS as they accessed the vision of being multilingual more often. Moreover, as their reflections involved critical evaluations, these participants also engaged in deep reflexivity and took multiple perspectives to assess the role of being multilingual in their future. Hence, they seemed to identify the 'evaluative consistency' between the newly developed IMS and other aspects of their sense of selves (Nowak et al., 2000), facilitating the self-organisation process concerning the construction of the IMS. These findings echoed previous research (Fisher et al., 2020, 2024; Forbes et al., 2021) on the role of reflections in strengthening individuals' identification with being multilingual but moved one step further to show the importance of eliciting reflections and reflexivity at higher cognitive levels in developing IMS.

This research also demonstrates the potential of a DLC perspective in understanding the operationalisation and development of IMS. First, investigating the constitution and configuration of the languages elicited in learners' imaginations of being multilingual can

help distinguish ideal selves from vague fantasies, addressing a potential limitation of the self-based approach to language learning motivation pointed out by Henry and Liu (2023). As shown in this study, participants with more developed IMS were clearer about the roles of, and interactions between, the languages they had acquired when they imagined being multilingual in the future.

Moreover, as the DLC approach only looks at the most expedient languages in individuals' minds (Lo Binaco & Aronin, 2020), it also enables a close look at how learners reflect on multilingual experiences and channel them into their IMS. As shown in this study, the levels of reflection and reflexivity at which learners arrived when reviewing their multilingual experiences were found to be related to the constitution and configuration of their DLCs presently active in their minds. Although all the participants understood Chinese (L1), English (L2), and German (L3), those whose reflections remained at lower levels were more likely to focus on the interactions only between their L2s and L3s, in which English functioned as a referencing system for their German learning and the scope of their reflections was limited to the scenario of language learning. In comparison, learners who maintained or developed their IMS tended to take a holistic view of language and activate more languages in their DLCs in reflection and reflexivity. In particular, they regarded eliciting linguistic resources from their L1s as important for concretising their imaginations of being multilingual. This was because their extensive knowledge of Chinese enabled them to conduct a deep analysis of cross-linguistic interactions in different contexts and recognise how learning a LOTE could enhance their communicative competence and develop their criticality towards language and culture. As mentioned above, such critical reflections seemed to help learners positively evaluate the consistency between the newly emerged IMS and their overall sense of selves, potentially contributing to the self-organisation process concerning the construction of their IMS.

Admittedly, as a small-scale qualitative study, the findings here are not generalisable. Unconsciousness involved in the development of IMS has also not been considered. Yet, it still provides some pedagogical implications for developing language learners' IMS. First, while previous research (Fisher et al., 2020) has shown the role of encouraging reflections on language experiences in developing learners' self-identification with multilingualism, this research underscored the potential of encouraging higher levels of reflection and reflexivity on learners' multilingual experiences in the LOTE class. Second, to enable the development of higher-level reflections and reflexivity, teachers may find it useful to help students take a holistic view of languages and activate their L1s during the reflective and reflexive process. In this study, teachers mainly focused on encouraging students to reflect on the interaction between students' L2s and L3s to facilitate their German learning. Students relied on individual agency to reflect on their language experiences more broadly, involving the elicitation of their L1s. This may, to some extent, explain why most participants in this study showed limited evidence of conducting higher-level reflective and reflexive thinking.

Conclusion

This study conducted a longitudinal inquiry into the role of reflection and reflexivity in influencing the development of LOTE learners' IMS. It moved forward the research field by demonstrating how different levels of reflection and reflexivity influenced the development of multilingual motivation. While reflection and reflexivity at lower cognitive levels could develop participants' emotional attachment to a multilingual future, those at higher levels appeared to help learners integrate being multilingual into their selves. This research also showed the potential of the DLC approach in understanding the operationalisation of and the role of reflection and reflexivity in influencing the development of IMS. Notably, language learners who adopted a holistic view of language and activated more languages acquired, including their L1s, in their DLCs during the reflective and reflexive process were likely to

conduct reflections at higher cognitive levels. Future research is needed to investigate how language educators can encourage high levels of reflection and reflexivity in class to strengthen learners' IMS.

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Table 1: Data collection procedures

Research methods	Timelines	Addressing research questions (RQ)
Interview 1&2	The first eight months of the fieldwork	RQ1
Interview 3-5	Ninth to 28th month	All the RQs
Written journals	After the third and fifth interviews	All the RQs

Table 2: The coding for different levels of reflections

Type of reflection	Description of the themes	Example
guided routine reflections	under teachers' regular instructions and focus on reviewing their recent multilingual experiences and briefly comparing the two languages	I reflected on my learning of German and English grammar when asked by teachers.
more critical retrospective reflections	reflections involving more critical judgement and evaluation, including investigating the reasons behind the formation of their experiences and evaluating multilingualism in a wider social context	German has some special expressions for some nuanced feelings. This has made me realise that my communicative repertoire is expanding after becoming multilingual.
prospective	through reflection, questioning and reshaping the original understanding of multilingualism and relating future development and actions	I can express myself more clearly after speaking three languages. I believe this skill will be helpful for my future.

Table 3: Coding scheme

Codes	Axial codes	Themes
ambiguous IMS	elaborateness of IMS	Participants' IMS
elaborate IMS		
non-existent IMS		
limited accessibility of IMS	accessibility of IMS	
easy accessibility of IMS		
guided routine reflections	reflections at different cognitive levels	the depth of reflections and reflexivity in influencing the development of IMS
critical retrospective reflections		
prospective reflections		
facilitative effect of reflections	role of reflection in influencing IMS	
non-facilitative effect of reflections		
reflexivity in the learning process (e.g. after reflecting on my past cross-linguistic experiences, I realised that I can be multilingual even if my proficiency in some of my languages are not high enough.)	role of reflexivity in influencing IMS	
facilitative effect of reflexivity		
languages elicited in reflection/reflexivity (English & German)	languages elicited in reflection/reflexivity from a DLC perspective	the constitution and configuration of learners' DLCs which were active during the reflective and reflexive process
languages elicited in reflection/reflexivity (Chinese & German)		
languages elicited reflection/reflexivity (English & Chinese)		
languages elicited in the reflection/reflexive process (Chinese, English & German)		
reflections and reflexivity on the definition of linguistic competence	reflections/reflexivity on conceptualising language and multilingualism	
reflections and reflexivity on the meaning of being multilingual		

Appendix A

Main interview prompts

Q1. How is your German learning going recently?

Q2. How much efforts have you put into German learning?

Q3. What are the motivators behind your German learning?

Q4a. *If the participant has not mentioned IMS in Q3:*

As you mentioned in the questionnaire/previous interviews, aspirations of being multilingual are part of your German learning motivation. Do you still think so?

Q4b. *If the participant has mentioned IMS in Q3:*

Have your aspirations of being multilingual changed since our last interview? If so, in what way?

Q5. Why did your aspirations change in this way?

Questions added from the third interview:

Q5. Do you (still) reflect on your language experiences in and out of the German class? If so, how do you feel about these experiences?

Q6. Do you (still) think that reflection/reflexivity influences the development of your aspirations of being multilingual?

Q7. Could you elaborate on the role of reflection/reflexivity on influencing your aspirations of being multilingual?