Commentary on the special issue on ability beliefs and learning a new language at school

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Abstract

This commentary discusses the important contribution of the special issue on ability beliefs in language learning at school. The nature of language learning is highly complex and requires complex theories to explain its linguistic, cognitive and social phenomena. I am particularly interested in writing a commentary on this special issue, given my long-term intrinsic interest in learning about psychological constructs that influence language learners' behaviors and performance. This article considers and responds to various ability belief constructs that the authors have presented, such as self-efficacy, self-concepts, and mindsets, as well as factors that contribute to the operation of these constructs in language learning. This article finally reflects on the issues I have learned from this commentary, pointing out exciting avenues for researching ability beliefs in language learning.

Keywords: ability beliefs; sociocognitive theory; sociocultural theory; language learning; language proficiency; calibration; confidence

1. Introduction

Language learning is organic in its dynamic development and constant adaptation to its surroundings. Language learning is influenced by cognitive (e.g., cognitive

capacity, roles of memory, information processing), affective (e.g., attitudes, love, emotions) and social or environmental (e.g., social relations with others, social values and cultural practices) factors (Ellis, 2015; Gass & Mackey, 2014; Gass et al., 2020; Lightbown & Spada, 2021; Ortega, 2009). Therefore, the question of ability beliefs in language learning is complex and notoriously difficult, requiring considering cognitive, linguistic, educational and social features. However, the question is worth asking.

Ability beliefs are also part of the positive psychology movement (e.g., Fredrickson, 2001; Gabryś-Barker & Gałajda, 2016) that emphasizes the importance of positive dimensions of learning, such as enjoyment, well-being and engagement that broaden mindsets and creativity in language learning and use (as compared to negative psychology, such as anxiety, worries, difficulties and boredom which can narrow mindsets; see Peterson, 2006; Wang et al., 2021). Ability beliefs comprise a complex network of self-views about one's capacity to learn new knowledge or skills. Such self-views, as illustrated in this special issue, include self-efficacy, self-concepts, mindsets, and self-regulation, to name a few. These psychological constructs have been studied because they are conceived to shape how people learn languages, leading to research examining the relationship between these constructs and language learning and individual differences for explaining variations among language learners or users.

When the editors of this special issue invited me to write a commentary, I had no hesitation to accept the invitation. I have long been interested in investigating the cognitive aspects of language learning, such as the role of strategic competence and accuracy of confidence judgments in language skill-using performance (e.g., Phakiti, 2007, 2008, 2016). I have also been interested in understanding other associated factors, such as the nature of self-concept, self-efficacy, and values, which constitute the constructs of ability beliefs in language learning (e.g., Phakiti et al., 2013). What is interesting about this special issue is also that it focuses on "learning a new language at school." So, its coverage of language and the group of learners is broad (e.g., any language learning for students in any school grade).

The guest editors posit in their proposal for this special issue that "theories of ability beliefs are myriad, function in different ways, and make unique, reciprocal contributions to the learning process." As a learner of a few languages, I cannot agree more with this statement. My ability beliefs have played a critical and crucial role in shaping my focus on learning various language aspects. The editors further state that while ability beliefs are theoretically related to the learning process, empirical research has focused on their relation to the learning outcomes or success (namely, the acquisition of the target language) rather than the learning processes themselves. I also agree with their proposition because much empirical research has focused on quantifying their constructs and performing inferential

statistics to testify their effect sizes (see Fryer, this issue). For example, ability beliefs are used to predict language achievement and individual differences in language learning. Therefore, such a nuanced difference between theory and empirical practice should be addressed by emphasizing the theoretical application of ability beliefs with language learning processes (e.g., cognitive and affective aspects of learning). This is a valid argument for this special issue.

The articles in this special issue investigate and consider various aspects of ability beliefs, such as self-efficacy (Fryer), mindsets (Lou), achievement goals (Li et al.), academic self-concept (Möller et al.), self-regulated language learning (Nakata et al.), and competence need satisfaction (Oga-Baldwin & Ryan). Two articles discuss causal factors affecting ability beliefs (Rubie-Davies & Li; Al-Hoorie & Hiver). Each article focuses on unique features of ability beliefs that shape students' language learning processes and achievement. I discuss each article in this special issue and add further issues and considerations that may shape our understanding of ability beliefs in language learning. In the following sections, I organize my discussion into three themes: Ability belief constructs, factors promoting ability beliefs, and causality.

2. Constructs of ability beliefs in language learning

2.1. Self-efficacy

According to Bandura (1977), self-efficacy refers to an individual's perceived confidence to perform a new task successfully or achieve a future learning goal. Language learners with high self-efficacy tend to be self-regulated and motivated during task engagement, whereas those with low self-efficacy tend to be unsure about what to do, have self-doubt about succeeding in the task, and experience burnt-out more easily (e.g., Mills et al., 2007). Fryer (this volume) performed a systematic review of studies on the role of self-efficacy in new language learning in formal education (2006-2023). Fryer rationalized the need for a systematic review, and I agree with the author's reasons, mainly because new research will ask new research questions and use new methods and analyses that can be useful to identify new research frontiers in classroom settings. In my commentary, I would like to focus on Fryer's third aim (i.e., theoretical contributions of self-efficacy research to second/new language learning). Fryer found that previous research did not significantly contribute to understanding the role of self-efficacy in second/foreign language learning. Some barriers to learning about its contribution include unclear definitions of situated self-efficacy, self-efficacy being only one of the many factors being researched in a study, adoption of

a cross-sectional design, which did not allow learning to unfold over time, overreliance on a survey design, and a lack of confounding variable control (e.g., gender and prior achievement). Fryer recommends future research on self-efficacy, focusing on research adopting a longitudinal design, asking developmental process questions, and calling for appropriate instruments to measure self-efficacy.

Fryer's recommendation is much needed for ability beliefs research as it should address learning processes and development. However, there are major challenges in applying a longitudinal design (e.g., access to students, maturation, attrition and retention rates, instruments, ethical constraints (dealing with young children), the cost involved and funding limitations, and researchers' methodological expertise and experience; see Ross & Masters, 2023). Pressure to publish also affects researchers' decision on whether to conduct a longitudinal study or not.

Self-efficacy in language learning is a complex construct because it consists of state-like confidence (situation-specific and fluctuating over time) and trait-like confidence (relatively stable over time). That is, self-efficacy is *multifaceted* in that it interacts with other confidence constructs, such as linguistic self-confidence in communicative capacity (Clément et al., 2003), self-esteem (Mercer, 2012), self-enhancement (Sampson, 2012), self-concept and mindsets (as discussed below). Another area for investigating self-efficacy concerns the validity or trustworthiness of learners' self-efficacy beliefs. Self-efficacy is affected by invalid self-assessment (Andrade, 2019; Brown et al., 2015). For example, students tend to be overconfident in what they can do successfully and have a distorted perception of their abilities. When self-efficacy is invalid (i.e., illusion of one's capability), learning may not be aligned with real-world task conditions, resulting in ineffective learning processes.

2.2. Mindsets

The construct of mindsets is an important one for ability beliefs. Mindsets are also known as implicit theories of an individual in terms of their self- and others-views (Dweck, 1999; Dweck et al., 1995; Kelly, 1995). Two well-known types of mindsets are fixed and growth mindsets. A fixed mindset is the belief that ability is governed by predispositions (e.g., intelligence levels, talents and memory capacity). For example, an individual may believe that language aptitude is a condition for successful language learning. When they perceive they do not have the necessary level of language aptitude, they will argue that there is no reason to try to learn a new language. If they try, they will likely attribute their failure to their lack of language aptitude. In this example, language aptitude is believed to be a fixed human condition. On the contrary, a growth mindset refers to an

individual's belief that there is always room for growth or improvement in human conditions. That is, people can develop knowledge and skills when they try. Individuals with growth mindsets can treat challenges, crises, difficulties and failures as opportunities for improving their personal growth. Ryan and Mercer (2012) pointed out that conceiving the two mindsets as a continuum is more beneficial since people may be placed between the two extreme mindset ends. Furthermore, Dweck et al. (1995) postulate that individuals may have different types of mindsets in different domains (e.g., having a fixed mindset in music learning but a growth mindset in language learning). Mindsets are theoretically connected to other ability beliefs (e.g., self-efficacy, attributions or efforts, goal orientation, and motivation; Ryan & Mercer, 2012). For example, a growth mindset increases self-efficacy beliefs.

Lou (this volume) argues that growth mindsets alone are insufficient for successful language learning. They require an environment that offers individuals ample opportunities to implement their growth mindsets. Metaphorically, growth mindsets are seen as seeds and the environment as soil. When soil is fertile, seeds will have more opportunity to become vigorous plants. This metaphor captures the concept very well. Lou proposes a comprehensive and complex framework in which growth mindsets can be embedded within the interpersonal and cultural system (i.e., ecological system) that sustains their growth mindsets for learning and resilience. This framework can guide future research on mindsets in language learning. Lou also comprehensively discusses how investigating growth mindsets in this proposed framework can be connected to other ability beliefs and psychological constructs, such as motivation, that influence learning processes and outcomes. I was excited when I reviewed this article as various components in the model and framework are thoroughly explained and connected to previous research and relevant mindset associates. Understanding the word count limit, I would like to know more about recommended and innovative research methodology and perhaps new technology applications for researching mindsets within this framework. I look forward to reading new studies that adopt this framework to investigate growth mindsets in school contexts. I also wonder whether it is possible that fixed mindsets can be operationalized within this framework (i.e., can bad seeds with fertile soil become some vigorous plants?). With our growth mindset, the answer will be "yes." Finally, reading Lou's article reminded me of another concept used in sports or military training (i.e., *mental toughness* – another positive psychological construct) (Gucciardi & Hanton, 2016). Mental toughness refers to one's capacity to adapt to disturbances threatening desirable performance outcomes. In sports, this characteristic is exhibited by top sportspersons (e.g., top tennis players and long-distance marathon athletes) who stay involved in stressful and

competitive situations. Language learners with strong mental toughness in stressful language learning and use situations (e.g., high-stakes examinations) accept that stress is normal and pivotal for growth.

2.3. Academic self-concept

Self-concept is probably the most challenging ability belief to define. In a simple definition, self-concept (or a set of beliefs about what one knows about oneself or perceives oneself to be like) is a multidimensional construct because it can be domain-general (e.g., self-concept of one's intelligence or knowledge) or domain-specific (e.g., self-concept of one's reading skills; Mercer, 2012). Thus, with age and learning, it can be stable or dynamic. Mercer (2012) also pointed out that it can be closely connected to other constructs, such as self-efficacy, self-esteem and identity. Self-concept can be a broad construct that subsumes those related constructs. Marsh's (1986) internal/external frame of reference model has influenced how individuals form their self-concept.

Möller et al. (this issue) focus on issues of academic self-concept in second language (L2) learning (a domain-specific self-concept) based on a research synthesis by Möller et al. (2020). Academic self-concept is related to beliefs about an individual's academic skills and knowledge. Möller et al. (this issue) pointed out the strong correlation between self-concepts and foreign language performance (r = 0.60). However, the authors also pointed out that "academic self-concepts do not correlate perfectly with objective measures." I found this statement odd as to why they would be perfectly correlated with other measures. The authors review previous research investigating the nature of self-concepts in L2 contexts (e.g., immersion and content and language integrated learning). The authors then conceptualize self-concepts in Eccles and Wigfield's (2020) situated expectancy-value theory that considers the roles of socialization and other psychological factors, such as motivation, in self-concepts. Möller et al. (this issue) also discuss research that compares academic self-concepts via social (e.g., comparing with others) and dimensional (e.g., comparing with one's other domains) comparisons. Many self-concepts in this section are mostly related to self-efficacy and self-assessment research.

While reading this article, I envisage avenues of research into ability beliefs in language learning. Nonetheless, I observed that the authors take a deterministic approach to understanding academic self-concepts (it is about their measured effects on another variable of interest). Academic self-concepts are mainly geared and judged via quantitative and statistical analyses (e.g., correlations, comparisons and effects). I wonder if self-concepts could be as meaningful in language learning if they were not necessarily quantified or measured to evaluate their magnitude. In reality,

self-concepts, like other ability beliefs, are qualitative in nature (i.e., soft construct), so the aim to quantify the constructs could distract researchers from understanding their authentic nature. Qualitative methods, case studies, or prolonged ethnographic research, for example, can yield an understanding of students' self-concepts in the language classroom rather than quantitative research (e.g., reasons and narratives). That is, we need authentic voices from students to talk about their self-concepts rather than merely responding to researchers' words in questionnaires.

2.4. Competence need satisfaction

Of all the articles in this special issue, although I have some basic knowledge about self-determination theory (SDT), I am least familiar with competence need satisfaction (Ryan & Deci, 2017) as an ability belief discussed by Oga-Baldwin and Ryan (this issue). So, I was curious to know more about this construct. Oga-Baldwin and Ryan (this issue) explain competence need satisfaction as the mini-theory under SDT in terms of competence (sense of capability to learn or complete a task), relatedness (sense of meaningful connections with others) and autonomy (sense of personal endorsement and willingness to engage in a given activity) that must be met. The three conditions of this competence need satisfaction, based on Oga-Baldwin and Ryan, support the development of motivation and sustain engagement. In their article, the authors consider criticism of the competence need satisfaction for explaining psychological mechanisms of optimal functioning in education (e.g., how it explains the motivation, the usefulness of well-being focus) and clarify what SDT means for this mini theory in learning (e.g., a way to promote volition and sustain motivation). The authors also discuss some relevant empirical research that indirectly links to the contribution of competence need satisfaction. Similar to other constructs discussed so far, a common technique and method for researching the construct is survey questionnaires. The authors mention a psycholinguistic method, such as reaction times, that may capture students' feelings of success and desire for more success. I believe that qualitative methods, such as verbal reports in a given learning situation, will help extend meaningful applications of this mini theory. To prove that this construct is useful for improving and sustaining language learning and performance, quantification is not the only method to open students' minds.

2.5. Ability beliefs in self-regulated language learning

I comment on Nakata et al. (this issue) as the last part on ability beliefs because this article connects ability beliefs to self-regulated language learning. The authors largely

adopt Zimmerman's (2000) triadic self-regulation theory to connect several ability beliefs (e.g., self-efficacy and mindsets) with other psychological constructs (e.g., language learning strategy use, motivation). The authors first discuss how self-efficacy can be studied using language learning strategies that emphasize metacognitive processes such as goal setting, planning, monitoring, and evaluation. Self-efficacy and strategic learning can be reciprocal rather than unidirectional. For example, when learners set their goals, self-efficacy can help them formulate possible future outcomes. When learners evaluate their performance, they shape their future self-efficacy.

Second, the authors propose how mindsets (fixed and growth) can be connected to motivation as goal orientations in self-regulated language learning by examining learning task values (e.g., task difficulty and intrinsic motivation). The authors also suggest that mindsets can be linked to attribution, which explains reasons for or sources of success or failure (e.g., effort) during self-regulated language learning. Third, Nakata et al. articulate how ability beliefs can be integrative to self-regulation and social regulation (sociocultural perspective such as mediation processes). For example, language learners can become more self-regulated when they interact with others through co-regulation and shared responsibilities. The authors provide several research avenues and questions that can connect various ability beliefs with other relevant learning processes within a complex network of self-regulated language learning. The authors help their readers put their target ability belief puzzle in the right contextual gap.

3. Factors antecedent to ability beliefs

3.1. Goal theories

A goal describes what a given individual intends to do or be capable of doing (e.g., I would like to have clear pronunciation when I speak; I would like to become an English teacher). It then shapes what actions and plans they need to take to meet their goals. Goal setting is, therefore, critical for language learning because otherwise, students will not know clearly where they are going or whether they have achieved their goals. There are short-term and long-term goals. A goal needs to be explicit and well-articulated. Indeed, goal setting is part of self-regulation theory (e.g., Zimmerman, 2000), metacognitive theory (e.g., Efklides, 2008), strategic competence (Phakiti, 2007), and language learning strategies (Oxford, 2017), to name a few.

Li et al. (this volume) aim to present types of goals other than achievement goals that are exclusively researched in language teaching and learning

contexts. Li et al. review the literature on goal theories that can be expanded beyond achievement goals. It should be noted that achievement goals are often associated with classroom teaching and learning because they are aligned with curriculum learning objectives or outcomes. They are often connected to achievement tests. Li et al. mainly present three goal theories (achievement, content and goal setting theories). First, the authors present achievement goal theory focusing on students' competence. Commonly known are mastery goals (desire to improve one's competence) and performance goals (desire to demonstrate one's competence), but a matrix of goals can be expanded to capture the complexity of students' goals. Li et al. pointed out that research suggests mastery goals in language learning are more desirable than performance goals because they result in better learning engagement, enjoyment and achievement.

Second, a goal content approach is presented in terms of work avoidance goals (minimizing effort and engagement), social goals (social reasons to do well), and personal best goals (self-goal to exceed previous performance). This review shows that work avoidance goals are undesirable as they limit learning success. The authors call for research into their influence on ability beliefs. Finally, goal-setting theory describes goals as actions in which individuals make conscious efforts to specify and articulate a goal to be achieved. It is apparent in this article that the authors prefer goal-setting theory for researching language learning as it is complex and well-suited to classroom situations.

The authors are comprehensive and annotative in reviewing goal theories and recommending directions for research. However, it remains essential to establish a connection between goals and other ability belief constructs. I found some discussion of different types of goals to be challenging to digest at times. This may be because the authors primarily focus on presenting types of goals for the readers.

3.2. Impact of teacher expectancy on ability beliefs

Several external or social factors vary widely in their impact on language learning and use (Ellis, 2015). For example, Ellis (2015, p. 206) points out that power and prestige determine "the context in which learners learn and an interactional view where social context is constructed dynamically in each situation." Ellis (2015) furthers that when social factors are conceived to affect students' access to input or motivation to learn, learners' psychological processes are assumed to be responsible for learning, meaning that learners need to direct their learning using the input available to them. However, when social factors are seen as a primary social activity that involves cognitive processes, learning is embedded in the social processes, meaning that it is no longer an individual's "cognitive

affair, but as a participatory and social affair" (Ellis, 2015, p. 206). In this light, understanding the constructs of ability beliefs requires careful consideration of social factors as part of an ecological learning system.

Through a systematic review, Rubie-Davies and Li (this issue) offer significant insights into a social factor related to teachers' expectations of second language learners. When I first read this article, I was unclear about its relevance to ability beliefs. Nonetheless, for a while, I was made aware of the impact of teachers' expectations on students' ability beliefs (i.e., a social source that shapes learners' ability beliefs). It can also be said that teachers' expectations of students are a form of their implicit theories (i.e., teachers' mindsets on their students– fixed or growth). According to Rubie-Davies and Li, the importance of realizing teachers' expectations cannot be ignored because they are conveyed through their interactions with students, types of learning activities, and quality of feedback and support, affecting students' ability beliefs. The authors systematically reviewed this area since much research has not investigated teachers' expectations of second language learners (SLLs). Six influential teachers' expectation themes were reported in this article: (1) expectations of SLLs and opportunities to learn, (2) deficit views of SLLs, (3) differential teacher interactions with students, (4) teacher beliefs and attitudes related to SLLs, (5) adjusting instruction and assessment for SLLs, and (6) peer relationships among and between SLLs. These themes appear to be interconnected in classroom settings and practice. Reading this study made me more aware of the importance of teachers' expectations than ever before. For example, in a context where SLLs are immigrants (i.e., part of the mainstream classroom), teachers' expectations tend to be low, and they hold a negative view of SLLs. A subsequent impact of such expectations is that SLLs could have less chance to improve their language acquisition, education, or career trajectories. A study in a bilingual school setting (Sharkey & Layzer, 2000) found that when teachers place SLLs in lower tracks (compared with first-language English-speaking students), they focus on SLLs' behavior management and ignore their learning success. Teachers' expectations were similar in a non-mainstream classroom context. Another notable impact of teachers' expectations is their inaccurate assessment of SLLs. They tend to either underestimate or overestimate SLLs' performance or learning outcomes. In brief, the study allows the readers to imply that teachers' expectations and treatments of SLLs will significantly impact students' ability beliefs (e.g., self-efficacy and mindsets). The article ascertains Ellis' (2015) insights into the roles of social factors in language learning. A key implication of this article is the need to develop high-quality intervention and support for language teachers so that they not only develop effective pedagogies but also recognize their implicit theories of expectations of students.

3.3. Causality in ability beliefs

I discuss Al-Hoorie and Hiver (this issue) the last because it has broader quantitative methodological implications for studying ability beliefs. Causality studies can be well-placed under the positivist and postpositivist paradigms, in which reality is assumed to be governed by a set of immutable rules or theories. Causality studies require a randomized experimental design and emphasize objectivity in data collection and analysis. In their article, Al-Hoorie and Hiver encourage readers to research and claim causality in language learning research bravely. The authors provide step-by-step guidance on how to develop an explicit and transparent causal model. They also consider the need to control and evaluate the influences of *confounders* (other independent variables that interfere with the target-independent variable to cause a change) and *colliders* (other independent variables that mediate or moderate the causality of the target-independent variable) in statistical modeling of causal relationships. The authors use a directed acyclic graph (DAG) to represent a network of direct and indirect paths between independent and dependent variables for hypothesizing and testing causality. A systematic review of the accuracy of students' self-assessment by León et al. (2023) provides examples of significant colliders of self-assessment accuracy (e.g., self-assessment experience, feedback and educational level).

Given the special issue of ability beliefs, the authors provide two examples of modeling ability beliefs (e.g., the effect [cause] of teacher support on student achievement). This article is valuable for helping researchers examine their hypotheses about causal relationships in their ability beliefs research. Nonetheless, research on causality is complex in classroom contexts (e.g., difficulty in randomizing students in an intact class). Furthermore, a causal finding based on controlling variables is not often generalizable in chaotic classroom learning situations where many independent variables interact simultaneously with learning and performance. Mercer et al. (2012) cautioned about the dangers of causality in ability belief research.

While inferential statistics yield causal insights into ability beliefs constructs in language learning, it is important to remember that language learning is complex and often *non-linear* (e.g., non-proportional between input and interaction received and learning change; Larsen-Freeman, 2017). Therefore, assuming linearity and causality as a primary focus in research may hinder new and more critical insights into these factors. Does researching ability beliefs necessarily yield their measurement scores or statistical findings? Can qualitative analysis, such as stories, personal perceptions and reported experiences, be equally valuable as evidence of their contributions to language learning?

4. My observations and reflections

4.1. Addressing the editors' guided questions in this special issue

In their proposal, the editors set to answer three questions, and I will articulate my answers as follows:

How do students' perceptions of their ability beliefs to learn a new language affect how they learn and the amount they learn?

The articles in this volume have shown that students' ability beliefs can influence what they learn and how they learn. For example, through a lens of high self-efficacy, students will likely take action to learn and complete new language tasks. Nonetheless, the question of the amount they learn due to ability beliefs goes against the idea that ability beliefs should be studied as part of learning processes rather than as a measured source of learning outcomes. The question of amount encourages researchers to place value on quantification and statistical findings rather than on the meaning of ability beliefs in language learning. Furthermore, since ability beliefs are qualitative in nature, quantification is not always the best practice. A danger is that failures to find quantitative values (namely amount) will devalue these important constructs because they are not quantitative. Findings may not be published, and a systematic review cannot include them in the analysis (the file-drawer problem). This can be similar to how researchers aim to find the statistical relationship between learning styles and learning performance, which results in no or weak relationships (see Dörnyei & Ryan, 2015). However, we know that learning styles are important for language learning.

Research on ability beliefs cannot ignore the affordance and role of new technology generative AI in everyday activities, which tend to boost students' self-efficacy and mindsets to learn a new task that cannot be explained in theories that did not organically consider AI specificity as a critical factor (e.g., students can now commonly use "how to" prompts in generative pre-training transformer (GPT), translate from one language into another with powerful and near-accurate voice translators, use mobile applications to improve their speaking and pronunciation, and use Grammarly to improve their writing quality).

What relationships or gaps exist between commonly used language acquisition models and established theories of ability belief in describing achievement of linguistic skills?

When combined, the articles in this special issue have demonstrated various relationships between ability belief constructs and models for explaining language learning (e.g., self-regulation, goal orientation, and self-determination theories). A fundamental

limitation of empirical research is that it cannot investigate all factors simultaneously in a single study due to methodological limitations and the complexity of any given constructs and learning contexts, causing inferential errors and infidelity. Additionally, while ability beliefs are viewed as positive psychology, it is possible that integrating them can result in a combination of positive and negative effects on language learning. Achievement is a buzzword and is subject to value implications (e.g., what it means for students, teachers, parents and governments). Instead, long-term attainment and development are more tenable in language learning.

The articles in this special issue have not mentioned what language to learn. It is worthwhile for the authors to mention popular languages in their educational contexts to enhance the meaning of ability beliefs. This is important because not all languages have equal values for individual learners (e.g., intrinsic or instrumental). While some students learn a new language at school because of their intrinsic motivation, they must study a particular language in most educational settings because their governments mandate it. Therefore, depending on what language students are learning, ability belief constructs will have varying contributions to their learning. It is also important to note that the nature of instructed second language acquisition (SLA) (see Loewen & Sato, 2017) differs significantly from natural SLA.

Finally, in applied linguistics, the construct of language proficiency (e.g., communicative competence, skill-using) has evolved significantly from that originated from an Anglophone monolingual view of communicative competence to multilingual and plurilingual perspectives in which various languages are fluid (see Leung, 2022). The language ability defined by the traditional communicative competence theory adopted in many educational contexts as they subscribe to international commercial language book series will differ significantly from that recently accepted and defined in a multilingual and multicultural context.

Leung (2022) argues that language proficiency exists only in an educational, training and assessment scheme and is primarily an artefact created by authorized agents who form evaluative criteria for specifying achievement, attainment and performance. Such an artefact is materialized into language curriculum design encompassing learning outcomes or objectives. Therefore, when considering the ability to learn a new language and the ability beliefs, we need to be clear about their alignments and the context that defines language proficiency or learning outcomes. An investigation into ability belief constructs needs to spell out the constructs of language ability being referred to. This will also benefit future systematic reviews (noted in Fryer, this volume; Rubie-Davies & Li, this volume).

What are the critical, unanswered theoretical and practical questions regarding ability beliefs for students learning new languages at school?

The articles in this special issue have contributed to understanding what theoretical and practical questions about ability beliefs should be asked. Understanding the roles of ability beliefs requires realizing that the data used are not perfect representations of the target construct. For example, research on other ability beliefs not included in this special issue, such as self-assessment, performance confidence, and calibration, suggests that learners are not accurate in their self-assessment (e.g., Brown et al., 2015; Ross, 2006) and performance evaluation (e.g., Butler, 2011). Bandura (1977) pointed out that students' confidence in learning and performance is a motivational and beneficial factor in learning. For example, believing that one is better than one actually is (being overconfident) may be beneficial in increasing one's ambition to accomplish a learning task, thereby increasing a chance of success.

Research generally found that students tend to be overconfident in their performance of challenging tasks (e.g., Kruger & Dunning, 1999) but underconfident in easy tasks (i.e., the hard-easy effect; Stankov & Crawford, 1996). Self-regulation theories promote the importance of accurate evaluation and awareness of an individual's ability or performance because they can inform them to study more to gain higher knowledge or ability (e.g., Butler & Winne, 1995; Zimmerman, 2000; Zimmerman & Schunk, 2011). Overconfident students may feel they do not need to study further or improve their current work. In contrast, underconfident students may feel unmotivated to learn or take new actions (Stone, 2000).

Underconfidence and overconfidence are labeled confidence biases (or miscalibration) in the calibration literature. A longitudinal study (over five years) on school children in Canada by Bouffard et al. (2011) shows that underconfident students had lower intrinsic motivation (e.g., low enjoyment rate) and decreased effort to learn. Bonneville-Roussy et al. (2017) conducted a longitudinal study on Grades 4/5 and 9/10 Canadian students and found relatively stable clusters of students being overconfident (28%), realistic (55%) and underconfident (17%).

Research into this ability and belief in language learning is needed because the benefits of overconfidence in motivation to learn have been debated (see Butler, 2011). For example, Gonida and Leondari (2011) found that students who were overconfident in their language and maths abilities tended to endorse performance goals (self-enhancement and self-protection; see also Jiang & Kleitman, 2015) and strive for approval from significant others. Empirical research on confidence beliefs should seek to identify the level at which over- or under-confidence is beneficial for language learning and the level at which it can be harmful to learning. Brown et al. (2015, p. 445) also ask a simple question: "Does it matter if students are

inaccurate in their self-assessments, so long as they are engaged in thinking about the quality of their work?" Brown et al. (2015) also provide essential methodological considerations when researching students' self-assessment and calibration.

4.2. Influence of differential theoretical underpinnings of ability beliefs

Students' beliefs about the nature of language learning can determine how they approach language learning or complete learning tasks. Investigating their beliefs is, hence, essential for theory and practice. To address the topic of ability beliefs in language learning, three notions should be clarified at the outset: learning, language and ability.

First, 'learning' originated from a cognitivist theory that regards the human mind as where learning occurs with a core assumption that the human mind is an independent agency and rule-governed system. A *cognitivist* conceives learning as a mental process within a given individual. A *sociocognitivist* may posit that while cognition is essential for learning, learning is an integrated cognitive-social activity within a situated context (Atkinson, 2011). A *sociocul- turalist* can further argue that learning is mediated by both psychological tools and social and cultural artefacts (Lantolf, 2011). Therefore, learning can be viewed differently, depending on a particular perspective, and ability beliefs will have different values relative to language learning. For example, investigating self-efficacy from a sociocognitive perspective can yield different meanings and interpretations than those based on a sociocultural perspective.

Second, the notion of 'language' from a *cognitive perspective* is an abstract linguistic process that occurs in an individual's mind (e.g., competence-performance distinction). However, from a *sociocognitive perspective*, language is a tool for social communication that cannot occur in an individual's mind alone but within a situated language context. That is, language takes place in social participation. From a *sociocultural perspective*, language is a mediational process that materializes information or concepts into a communication act and ends as internalization within a given individual. Therefore, knowing that language can mean different things from different perspectives is critical.

Third, 'ability', from a *cognitive perspective*, is generally viewed as the internal mental capacity of a given individual – similar to how knowledge is stored in memory. Performance is evidence of what individuals can or cannot do independently. From a *sociocognitive perspective*, ability is both cognitive and social in that performance can be assisted by an individual's environment. For example, if students know they can use Generative AI to help them with their writing, ability and performance cannot be seen as purely cognitive. Their self-efficacy and mindsets

will be different when they cannot use AI. From a *sociocultural theory viewpoint*, ability is clearly co-constructed between a given person and others with higher mental abilities, such as parents and teachers. Therefore, when we use the term ability beliefs, we need to know the perspective to which they are ascribed.

Accordingly, it is essential to recognize the theoretical position one takes before addressing the constructs of ability beliefs, which are essentially multi-faceted in that they involve various sub-constructs (e.g., self-concept, self-effi-cacy). Many constructs of ability beliefs discussed so far are sociocognitive (e.g., self-efficacy, as pointed out below). However, some constructs (e.g., self-regula-tion and goal orientation) can be *in-betweeners* (i.e., somewhat cognitive, soci-ocognitive and sociocultural), which can result in some confusion in their inter-pretation. Social cognitive theory is used interchangeably with sociocognitive theory (which can be assumed to be the same thing). However, its use can be mixed up with sociocultural theory because people consider culture part of so-ciety. Empirical researchers and theorists, when publishing, may assume that readers understand the differences between sociocognitive and sociocultural theories. However, such an assumption can mislead readers new to research (e.g., teachers and graduate students) to believe that the two theories are used interchangeably. Therefore, it is important to spell out how they define their theoretical assumptions whenever possible.

Ellis (2015), for instance, clearly differentiates the underpinnings of the so-ciocultural and sociocognitive theories. Sociocultural theory in second language acquisition views language development as a mediational interaction between an individual (with biological inheritance) and culturally organized artefacts where mediation is part of social activity involving other-regulation and self-regulation. Unlike sociocultural theory, sociocognitive theory focuses on the participatory role of cognitive and social dimensions in language learning that occurs in a spe-cific situation. Atkinson (2011), for example, argues that language is neither cog-nitive nor social. There is a participatory coexistence between linguistic and social space. For instance, individuals simultaneously attend to linguistic signs as they speak or use the language in a social context. More importantly, Atkinson (2011) rejects the sociocultural theory view that learning begins in a sociocultural setting and ends in the individual's head. Instead, it focuses on an individual's active role in changing or manipulating the social setting or environment (i.e., an individual is not just a recipient but an activist or agent of change). Language learning and use, therefore, becomes dynamically adaptive to its environment as "a natural, adaptive process of ecological alignment" (Atkinson, 2011, p. 144). In summary, cognitive, sociocognitive, and sociocultural theories are related but distinctive when investigating the same phenomenon (e.g., language, learning, and ability).

5. Concluding remarks

The articles together show that the role and function of ability beliefs, when approached in an integrative manner, are complex, subtle and unstable during language learning. They are the cornerstone of theories of ability beliefs that will contribute to language learning and inform classroom and research practices. The contributors in this volume have addressed these critical topics and broadened our understanding of the ability beliefs in language learning. The special issue can potentially advance our knowledge of the complexities of language learning. I encourage language teachers and researchers to read this special issue and expand the ability belief constructs in both teaching and research.

References

Andrade, H. L. (2019). A critical review of research on student self-assessment. *Frontiers in Education*, *4*(87), 1-13. https://doi.org/10.3389/feduc.2019.00087

Atkinson (2011). A sociocognitive approach to second language acquisition. In D. Atkinson (Ed.), *Alternative approaches to second language acquisition* (pp. 143-166). Routledge.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215. https://doi.org/10.1037/0033-295X.84.2.191

Bonneville-Roussy, A., Bouffard, T., & Vezeau, C. (2017). Trajectories of self-evaluation bias in primary and secondary school: Parental antecedents and academic consequences. *Journal of School Psychology, 63*, 1-12. https://doi.org/10.1016/j.jsp.2017.02.002

Bouffard, T., Vezeau, C., Roy, M., & Lengelé, A. (2011). Stability of biases in self-evaluation and relations to well-being among elementary school children. *International Journal of Educational Research, 50*(4), 221-229. https://doi.org/10.1016/j.ijer.2011.08.003

Brown, G. T., L., Andrade, H. L., & Chen, F. (2015). Accuracy in student self-assessment: Directions and cautions for research. *Assessment in Education: Principles, Policy & Practice*, *22*(4), 444-457. https://doi.org/10.1080/0969594X.2014.996523

Butler, D., & Winne, P. (1995). Feedback and self-regulated learning: A theoretical synthesis. *Review of Educational Research, 65*(3), 245-281. https://doi.org/10.3102/00346543065003245

Butler, R. (2011). Are positive illusions about academic competence always adaptive, under all circumstances: New results and future directions? *International Journal of Educational Research*, *50*, 251-256. https://doi.org/10.1016/j.ijer.2011.08.006

Clément, R., Baker, S. C., & MacIntyre, P. D. (2003). Willingness to communicate in a second language: The effect of context, norms and vitality. *Journal of Language and Social Psychology, 22*(2), 190-209. https://doi.org/10.1177/0261927X03022002003

Dörnyei, Z., & Ryan, S. (2015). *The psychology of the language learner revisited*. Routledge.

Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality, and development*. Psychological Press.

Dweck, C. S., Chiu, C. -Y., & Hong, Y. Y. (1995). Implicit theories and their role in judgements and reactions: A world from two perspectives. *Psychological Inquiry*, *6*(4), 267-285. https://doi.org/10.1207/s15327965pli0604_1

Eccles, J. S., & Wigfield, A. (2020). From expectancy-value theory to situated expectancy-value theory: A developmental, social cognitive, and sociocultural perspective on motivation. *Contemporary Educational Psychology, 61*(4), 101859. https://doi.org/10.1016/j.cedpsych.2020.101859

Efklides, A. (2008). Metacognition: Defining its facets and levels of functioning in relation to self-regulation and co-regulation. *European Psychologist, 13*, 277-287. https://doi.org/10.1027/1016-9040.13.4.277

Ellis, R. (2015). *Understanding second language acquisition*. Oxford University Press.

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden -and-build theory of positive emotions. *American Psychologist, 56*(3), 218-226. https://doi.org/10.1037/0003-066X.56.3.218

Gabryś-Barker, D., & Gałajda, D. (Eds.) (2016). *Positive psychology perspectives on foreign language learning and teaching*. Springer.

Gass, S. M., Behney, J., & Plonsky, L. (2020). *Second language acquisition: An introductory course* (5th ed.). Routledge.

Gass, S. M., & Mackey, A. (Eds.) (2014). *Routledge handbook of second language acquisition*. Routledge.

Gonida, E., & Leondari, A. (2011). Patterns of motivation among adolescents with biased and accurate self-efficacy beliefs. *International Journal of Educational Research, 50*(4), 209-220. https://doi.org/10.1016/j.ijer.2011.08.002

Gucciardi, D. F., & Hanton, S. (2016). Mental toughness: Critical reflections and future considerations. In R. Schinke, K. McGannon, & B. Smith (Eds.), *Routledge international handbook of sport psychology* (pp. 439-448). Routledge.

Jiang, Y., & Kleitman, S. (2015). Metacognition and motivation: Links between confidence, self-protection and self-enhancement. *Learning and Individual Differences, 37*, 222-230. https://doi.org/10.1016/j.lindif.2014.11.025

Kelly, G. A. (1995). *The psychology of personal construct*. Norton.

Kruger, J., & Dunning, D. (1999). Unskilled and unaware of it: How difficulties in recognizing one's own incompetence lead to inflated self-assessments. *Journal of Personality and Social Psychology, 77*, 1121-1134. https://psycnet.apa.org/doi/10.1037/0022-3514.77.6.1121

Lantolf, J. P. (2011). The sociocultural approach to second language acquisition: Sociocultural theory, second language acquisition, and artificial L2 development. In D. Atkinson (Ed.), *Alternative approaches to second language acquisition* (pp. 24-47). Routledge.

Larsen-Freeman, D. (2017). Complexity: The lessons continue. In L. Ortega & Z. Han (Eds.), *Complexity and language development: In celebration of Diane Larsen-Freeman* (pp. 11-50). John Benjamins.

León, S. P., Panadero, E., & Garcia-Martinez, I. (2023). How accurate are our students? A meta-analytic systematic review on self-assessment scoring accuracy.

Educational Psychology Review, 35(4), Article 106. https://doi.org/10.100 7/s10648-023-09819-0

Leung, C. (2022). Language proficiency: From description to prescription and back. *Educational Linguistics, 1*(1), 56-81. https://doi.org/10.1515/eduling-2021-0006

Lightbown, P. M., & Spada, N. (2021). *How languages are learned* (5th ed.). Oxford University Press.

Loewen, S., & Sato, M. (Eds.) (2017). *Routledge handbook of instructed second language acquisition*. Routledge.

Marsh, H. W. (1986). Verbal and math self-concepts: An internal/external frame of reference model. *American Educational Research Journal, 23*(1), 129-149. https://doi.org/10.3102/00028312023001129

Mercer, S. (2012). Self-concept: Situating the self. In S. Mercer, S. Ryan, & M. Williams (Eds.), *Psychology for language learning: Insights from research, theory and practice* (pp. 10-25). Palgrave Macmillan.

Mercer, S., Ryan, S., & Williams, M. (2012). Conclusion: Final remarks. In S. Mercer, S. Ryan, & M. Williams (Eds.), *Psychology for language learning: Insights from research, theory and practice* (pp. 239-247). Palgrave Macmillan.

Mills, N., Pajares, F., & Herron, C. (2007). Self-efficacy of college intermediate French students: Relation to achievement and motivation. *Language Learning, 57*(3), 417-442. https://doi.org/10.1111/j.1467-9922.2007.00421.x

Möller, J, Zitzmann, S., Machts, N., Helm, F., & Wolff, F. (2020). A meta-analysis of relations between achievement and self-perception. *Review of Educational Research, 90,* 376-419. https://doi.org/10.3102/0034654320919354

Ortega, L. (2009). *Understanding second language acquisition*. Hodder Education.

Oxford, R. L. (2017). *Teaching and researching language learning strategies: Self-regulation in context* (2nd ed.). Routledge.

Peterson, C. (2006). *A primer in positive psychology*. Oxford University Press.

Phakiti, A. (2007). *Strategic competence and EFL reading test performance*. Peter Lang.

Phakiti, A. (2008). Construct validation of Bachman and Palmer's (1996) strategic competence model over time in EFL reading tests. *Language Testing, 25*(2), 237-272. https://doi.org/10.1177/0265532207086783

Phakiti, A. (2016). Test takers' performance appraisals, appraisal calibration, and cognitive and metacognitive strategy use. *Language Assessment Quarterly, 13*(2), 75-108. https://doi.org/10.1080/15434303.2016.1154555

Phakiti, A., Hirsh, D., & Woodrow, L. (2013). It is not only English: Roles of other learner factors on English language learning and academic learning of ESL international students in Australia. *Journal of Research in International Education, 12*(3), 239-258. https://doi.org/10.1177/1475240913513520

Ross, J. A. (2006). The reliability, validity, and utility of self-assessment. *Practical Assessment Research & Evaluation*, *11*(10), 1-13. http://pareonline.net/getvn.asp?v=11&n=10

Ross, S. J., & Masters, M. C. (Eds) (2023). *Longitudinal studies of second language learning: Quantitative methods and outcomes*. Routledge.

Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Publishing.

Ryan, S., & Mercer, S. (2012). Implicit theories: Language learning mindsets. In S. Mercer, S. Ryan, & M. Williams (Eds.), *Psychology for language learning: Insights from research, theory and practice* (pp. 74-89). Palgrave Macmillan.

Sampson, R. (2012). The language-learning self, self-enhancement activities, and self perceptual change. *Language Teaching Research*, *16*(3), 317-335. https://doi.org/10.1177/1362168812436898

Sharkey, J., & Layzer, C. (2000). Whose definition of success? Identifying factors that affect English language learners' access to academic success and resources. *TESOL Quarterly*, *34*(2), 352-368. https://doi.org/10.2307/3587961

Stankov, L., & Crawford, J. D. (1996). Confidence judgments in studies of individual differences. *Personality and Individual Differences*, *21*(6), 971-986. https://psycnet.apa.org/doi/10.1016/S0191-8869(96)00130-4

Stone, N. J. (2000). Exploring the relationship between calibration and self-regulated learning. *Educational Psychology Review*, *12*(4), 437-75.

Wang, Y., Derakhshan, A., & Zhang, L. J. (2021). Researching and practicing positive psychology in second/foreign language learning and teaching: The past, current status and future directions. *Frontiers in Psychology*, *12*, 731721. https://doi.org/10.3389/fpsyg.2021.731721

Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 13-39). Academic Press.

Zimmerman, B. J., & Schunk, D. H. (Eds.) (2011). *Handbook of self-regulation of learning and performance*. Routledge.