In R. Barnard, & J. Li (Eds.) (2016). *Language Learner Autonomy: Teachers' Beliefs and Practices in East Asian Contexts* (pp. 150-166). Phnom Penh, Cambodia: IDP Education Cambodia.

Afterword

A Dynamic Metacognitive Systems Perspective on Language Learner Autonomy

Lawrence Jun Zhang
The University of Auckland, Auckland, New Zealand

A Dynamic Metacognitive Systems Perspective

It has been 40 years since Rubin (1975, p. 41) and Stern and his associates (Naiman, Fröhlich, Stern, & Todesco, 1978, p. xii; Stern, 1975, p. 304) heralded research into "good language learners." Despite criticisms against language learning / learner strategy (LLS) research (e.g., Ellis, 1994; Rees-Miller, 1993; Tseng, Dörnyei & Schmitt, 2006), responses are equally vehement. Such interactions are significant for re-examining LLS research to advance the field (Chamot & Rubin, 1994; Cohen, 2007; Gao, 2007; Rose, 2012). To a great extent, LLS research has come to terms with the status quo it enjoys today (Cohen & Griffith, 2015; Cohen & Macaro, 2007; Grenfell & Macaro, 2007). Nonetheless, of all these discussions, one key element, metacognition, which is so crucial to the construct of LLS as well as to learner autonomy, has not been fully brought to the fore in relation to learner autonomy (cf. Murray, 2011). For learners to be autonomous or more specifically to take charge of their learning, they need to be equipped with a sound metacognitive knowledge that relates to their understanding about themselves, learning tasks, and strategies for realizing their goals towards language learning success (Flavell, 1979; Wenden, 1998; Zhang, 2010a).

Metacognition is often referred to as a range of beliefs, thinkings, understandings, behaviours, and strategies for current and future actions which are subject to social, contextual, and cultural modifications as and when the location where the learning enterprise takes place changes (Flavell, 1979, see also Wenden, 1998; Zhang, 2001a). Learners' metacognitive knowledge systems are not static. They are complex and dynamic; therefore, it is imperative that they be understood explicitly as continuously changing and adapting in accordance with the time, location, task, and many other variables that are dependent upon learners' choices and are determined by their decision-making as well (Zhang, 2010b). Such change and adaptation

DOI: http://doi.org/10.13140/RG.2.2.31492.53126

are to be enacted upon by learners and induced by the learning tasks, task environments, and sociocultural-sociopolitical contexts where learning takes place in its "situated" locales (Lave & Wenger, 1991). In order to be autonomous in language learning, learners need to learn to be strategic in handling learning tasks, with an ultimate aim of "taking control" of their learning. Such moves towards becoming strategic learners are guided by their metacognition. Their deliberations on the what, when, where, why, and how in the language learning process are often closely related to their metacognitive knowledge stores; accordingly, they make decisions and take actions appropriately.

Dynamic systems usually have many different types of elements or variables at different levels, as is the case for the dynamic metacognitive systems. These different types of elements or variables are interlinked, and interact, with each other, and they also change constantly in time. From this perspective, an individual L2 learner is a dynamic system consisting of cognitive variables such as intentionality, working memory, intelligence, motivation, aptitude, and L1 and L2 knowledge. These cognitive variables are also related to the social system, including the degree of exposure to the L2, maturity, level of education, and the environment or context with which the individual interacts (de Bot, Lowie, & Verspoor, 2007, pp. 7-8). The context of language learning necessarily embraces the cognitive context (e.g., working memory or intentionality, as mentioned above), the social context (e.g., educational system, relationships with other learners and the teacher), the physical environment, the pedagogical context (e.g., the task, materials, and ways of teaching and learning), and the sociopolitical environment, just to name a few (Larsen Freeman & Cameron, 2008b). Consequently, language learning is actually a series of situated events and "an embodied action" (Larsen-Freeman & Cameron, 2008a, p. 108). In the learner's engagement with the learning task, learning is "an iterative process [that] works both within the individual and between individuals at the social level" (de Bot et al., 2007, p. 11). It is these dynamic aspects of how language learners perceive themselves, learning tasks, and learning processes, and how they value others' views of them and how they complete the learning tasks in specific learning environments (learning inside as well as outside classrooms; see Nunan & Richards, 2015) that constitute the essential nature of a dynamic systems perspective on metacognition and hence to learner autonomy (see Zhang, 2001; Zhang & Zhang, 2013; Zheng, 2012).

Strategy Deployment and Learner Autonomy

Effective and flexible deployment of LLSs for achieving learning goals is typical of learners who show strong autonomy in language learning (Macaro, 2008). In the existing LLS classification systems, metacognition is frequently mentioned (O'Malley & Chamot, 1990; Oxford, 2011; see Zhang, 2003, for a summary). Research also shows that general LLSs and strategies in relation to learning specific skills such as listening, speaking, reading, vocabulary, grammar, and writing are essential building blocks of students' metacognitive knowledge systems. However, the specific nature of each individual language skill requires different and yet related metacognitive knowledge and strategies. In fact, as early as 1977, Gagné (1977) postulated that strategies are "skills by means of which learners regulate their own internal processes of attending, learning, remembering, and thinking" (p. 35). Evidently, this statement already refers to learner autonomy and metacognition to some extent.

Essential to promoting strategic learning is a serious consideration of the cultural practices and beliefs that both learners and teachers hold about language learning and learner autonomy. Foundational to such an understanding is students' metacognition about language learning (Zhang, 2008), including various factors related to effective learning (their thinking about learning and LLSs, and themselves as learning agents), because learning is a "situated activity", in which learners can gain "legitimate peripheral participation" (Lave & Wenger, 1991, p. 29; see also Gieve & Clark, 2005; Zhang, 2010b). Developing learner autonomy through teacher scaffolding exactly fits well with this understanding. Canagarajah (2007) postulates that it is necessary to nestle and reframe a cognitive view of language acquisition within a socially-embedded system so that these commonly used constructs are not treated in isolation but in osmosis so that they are understood "in a more socially embedded, interactionally open, and ecologically situated manner" (p. 936). Language learners' developmental trajectories towards autonomy need to be taken into serious consideration when their language development and related metacognitive knowledge systems are examined in light of this sociocultural understanding for the purpose of promoting learner autonomy.

More significantly, the interactive relationship between self-regulated or self-directed learning (Kaplan, 2008) (and, of course, by inference, learner autonomy) and metacognition indicates that learners can draw on their metacognitive knowledge to make decisions and take charge of their learning towards higher proficiency in the target

language (Cotterall & Murray, 2009). All the reports in this volume are closely linked to specific cultural and educational realities of these countries, which are in fact evolving constantly.

Revisiting Definitions of Learner Autonomy

Defining learner autonomy is crucial to our classroom positioning of who we are. If we recall, we will find, in some chronological sequence, that Holec (1981, p. 3) thought that autonomy is "the ability to take charge of one's own learning." Little (1991) stressed learners' control over their own cognitive processes. Benson (2006, p. 33) maintained that "control is a question of collective decision-making rather than individual choice." He further posited that autonomy is an attitude and capacity to exert control over learning (Benson, 2001). Given that all these definitions are offered by scholars with a Western educational background and that learner autonomy is much a Western notion closely associated with individualism and freedom (Benson, 2011), it is time that research be conducted to find out if learner autonomy is suitable in non-Western settings such as Asia, as was previously discussed in the literature (e.g., Littlewood, 1999). Benson (this book) states that

> After more than forty years of research and practice on autonomy in language learning and teaching, we are beginning to see a more widespread acceptance of learner autonomy is both a desirable characteristic of language learners and an important consideration in the practice of language teaching, (p. X)

Borg and Al-Busaidi (2012) posited that "the extent to and manner in which learner autonomy is promoted in language classrooms will be influenced by teachers' beliefs about what autonomy actually is, its desirablity and feasibility" (p. 6). This is indeed a very broad statement. As pointed out by Nunan (1997), autonomy in the language classroom is a matter of degree instead of it being a binary phenomenon. Cultural contexts might be a defining factor (see Little, 2007).

Benson (2003) proposed five useful guidelines for fostering autonomy in language classrooms. In his understanding, teachers need to: 1) be actively involved in students' learning; 2) provide options and resources; 3) offer choices and decision-making opportunities; 4) support learners; and 5) encourage reflection. Such a proposal also goes well with the tenets in the self-determination theory (SDT) (Deci &

Ryan, 1985), where intrinsic motivation is fostered by environmental factors and is a prerequisite for students to become autonomous. Autonomy support comes from everyone around learners, including their friends, classmates, teachers, mentors, and parents or guardians. As Núñez, Fernández, León, and Grijalvo (2015, p. 191) posited, promoting choice, minimizing pressure to perform tasks, and encouraging initiatives are what autonomy support is about, because "autonomy support is the interpersonal behavior teachers provide during instruction to identify, nurture, and build students' inner motivational resources" (Deci & Ryan, 1985; Reeve, Deci, & Ryan, 2004; see also Jang, Reeve, & Deci, 2010; Ushioda, 2011).

Some latest research findings do point to the power of autonomy support on learners' decision to take charge of their own learning. Although not specifically focusing on language teaching and teaching, Núñez et al. (2015) found that

> if teachers promote choice, minimize pressure to perform tasks in a certain way, and encourage initiative, in contrast to a controlling environment, characterized by deadlines, external rewards, or potential punishments, they will provide students with interesting experiences that are full of excitement and positive energy. (p. 191)

Lai's (2015) survey data from 160 foreign language learners revealed similar patterns in relation to technology use in language learning. Lai reported that affection, capacity, and behaviour support are types of teacher support and that "affection support influenced learner self-directed technology use through strengthened perceived usefulness, and that capacity support and behaviour support influenced learner self-directed technology use through enhanced facilitating conditions and computer self-efficacy" (p. 74). In other words, all this has much to do with learners' metacognitive knowledge, metacognitive experiences, as well as the reciprocal nature of the relationship between the two enacted upon by learners for achieving the goals (Cotterall & Murray, 2009; Gao & Zhang, 2011).

Studies in This Volume

The studies in the book are organised such that all the country reports are based mainly on data collected through a questionnaire (Borg & Al-Busaidi, 2012) and interviews. Such an organisation makes the comparison much easier. As the chapters have already shown, the findings from these countries share more parallels than differences in

terms of how teachers' conceptualisations are linked to their pedagogical practices.

As Barnard and Li's (2016) introduction (this book) clearly informs us, the phenomenon of learner autonomy has not been well researched in relation to Asian EFL contexts, despite many teachers talking about it or writing about it without sufficient data. Therefore, the timeliness of this volume in filling the existing gap in the literature is immensely significant. It goes without saying, it is a wonderful idea to collectively investigate, in one edited volume, how teachers of different ethnicities and nationalities working in Asia conceptualise learner autonomy, whether they are willing to implement it, what challenges they will face if they are, and whether they will become ready when professional development opportunities are provided. Following this plan, Benson's overview chapter, "Language learner autonomy: Exploring teachers' perspectives on theory and practice," serves a good purpose of laying a solid theoretical foundation for the ensuing chapters to build on their individual studies. Haji-Othman and Wood's "Perceptions of learner autonomy in higher education of Brunei Darussalam" analysed responses from 32 questionnaire respondents, who were of different nationalities (12 Bruneian, 6 British, 4 Indian, 2, Canadian, 2 Malaysian, 2 Pakistani, and 4 of other citizenship). They uncovered similar findings as those reported in Borg and Al-Busaidi (2012). What is interesting, though, is that, although of different ethnic backgrounds or nationalities, 81.25% of the respondents believed that learner autonomy would facilitate L2 learning success, with 62.5% endorsing the view that learner autonomy would expedite language learning. Keuk and Heng report findings from 47 teachers of English in Cambodia, in "Cambodian ELT teachers' beliefs and practices of language learner autonomy." Through multiple data sources, they found that most Cambodian EFL teachers in their study had their own understandings about learner autonomy. Such understandings might refer to learners' ability in making decisions about, and taking responsibility for, their learning. Most teachers thought that promoting learner autonomy would benefit students. They also seemed to be more actively engaged in encouraging and practising learner autonomy through activity-based approaches to help learners to become independent.

Chinese culture and its influence on East Asian cultures might be mirrored in these countries mentioned above. It is time to have a look at what Chinese EFL teachers' beliefs are and their pedagogy in developing learner autonomy. Wang and Wang's report, "Developing learner autonomy: Chinese university EFL teachers' perceptions and

practices," was based on 44 English teachers in the Faculty of Foreign Languages of a non-national-key university in northern China. Their findings show that Chinese EFL teachers' beliefs about learner autonomy resemble those reported in Borg and Al-Busaidi's (2012) study. Interestingly, however, the interview responses to the definition of learner autonomy did not reflect all the dimensions built into Borg and Al-Busaidi's questionnaire.

Turning to Indonesia, Lengkanawati focuses on "Teachers' beliefs in learner autonomy and their feasibility for implementation in Indonesian EFL settings." Somewhat differently from the other reports in this volume, Lengkanawati found that EFL teachers and other stakeholders were not familiar with the term *learner autonomy*. The data collected from 58 junior and senior high school and university teachers intended to find out their knowledge about learner autonomy, their thinkings about whether it should be promoted, possible constraints in implementing learner autonomy, and potential opportunities to foster it in language learning. Reviewing the available literature on learner autonomy, especially how scholars assumed how learner autonomy might be understood and implemented, particularly challenges in its implementation, Lengkanawati resorts to Dardjowidjojo (2001), who argued that the Western concept "the role of learners as active participants and the teachers as facilitators in the teaching learning process" would not work well in Indonesian contexts. Fostering learner autonomy could encounter difficulty because Indonesian culture tends not to encourage student autonomy in classroom situations. Nevertheless, Lengkanawati's teacher professional development workshop with a focus on learner autonomy showed positive results. By involving 58 teachers and talking about learner autonomy and strategies for developing and promoting it, Lengkanawati reported that those teachers' perspectives changed through such a workshop. Inevitably, to these teachers, learner autonomy without teachers was not possible. This is actually not surprising at all, because real learner autonomy does not mean that the teacher does not care about students. It is a degree of releasing responsibility to them.

With regard to Japan, Stroupe, Rundle, and Tomita's chapter, "Developing autonomous learners in Japan: Working with teachers through professional development," is a little more theoretical than the rest of the chapters. Given that in the Japanese education system examinations take the centre stage (e.g., the national entrance examination for university study; see Stewart & Irie, 2012),

implementing learner autonomy necessarily comes with some challenges, as in other Asian countries. But because the participants were 16 faculty members from different departments of various nationalities (seven Japanese, five Americans, two British, one Filipino, and one Canadian), the authors thought that developing learner autonomy was possible for various age groups instead of only for adult learners. Their interview data, suggest, however, that prescribed curriculums that have to be executed within a tight timeframe and limited class time were possible constraints on developing learner autonomy. In other words, the reported questionnaire data are not exactly the same as what these participants said in the interviews.

Rañosa-Madrunio, Tarrayo, Tupas, and Valdez found somewhat similar patterns as what most authors have reported so far. Their chapter, "Learner autonomy: English language teachers' beliefs and practices in a tertiary institution in Manila, Philippines," was based on data from 50 respondents and an interview of six teachers. Their findings show "the teachers' informed skepticism towards learner autonomy because its use is always set against the backdrop of educational infrastructures and cultural norms which are largely beyond the control of the teachers." Meanwhile, teachers were not resistant to learner autonomy and instead they saw "the potential of learner autonomy to transform learners' lives." The authors conclude that learner autonomy should be better understood in its situatedness, which is contingent upon policies and regulations of particular institutions as well as sociocultural infrastructures.

Tapinta's "Thai teachers' beliefs in developing learner autonomy: L2 education in Thai universities" was based on 35 Thai university EFL teachers' questionnaire data and online (written) interviews. Tapinta found Thai EFL teachers she asked to complete the questionnaire were well aware of the concept of learner autonomy and interested in developing students into autonomous learners. Similar to other authors, again, her findings also suggest that Thai culture and institutional constraints restricted the implementation of learner autonomy. Teacher interviews also suggest that Thai students were not intuitively autonomous or independent because they were influenced by a social value of dependency commonly observed in Thailand. These findings echo well what Watson Todd (1996, p. 232, cited in Tapinta, 2016, this book) reported on, namely, the teacher was still the person that controlled the classroom dynamics and the degree of students' readiness for autonomous learning was restricted due to their lack of

"requisite skills, knowledge and strategies" (see also Darasawang & Watson Todd, 2012).

Nguyen's chapter, "promoting learner autonomy: Insights from English language teachers' beliefs and practices in Vietnam," involved 84 EFL teachers from six public universities. This study is necessarily a nice addition to the already emerging area of great interest in Vietnam. For example, in discussing issues facing the implementation of learner autonomy in Vietnam, Duong (2011) noted, "learner autonomy continues to be a very vague concept and theory in current Vietnamese education" (p. 12; as cited in Nguyen, 2016, this volume). Therefore, the findings from Nguyen's study will help clarify the myths and doubts about learner autonomy among Vietnamese EFL teachers, because his findings indicate that teachers were aware of the differences between desirability and feasibility. Idealistically, moving towards autonomy is what language education should aim to achieve and making an effort to help learners to become autonomous learners is desirable, but whether it is feasible is shrouded with challenges inherent in cultural traditions and constrained by many other local conditions.

Some Reflections and Conclusion

From all the country reports, it is discernible that developing high levels of learner autonomy is desirable but sometimes unfeasible due to many cultural and contextual constraints. The responsibility seems to rest on the shoulders of EFL teachers, whose professional preparation, willingness to engage learners, and concrete actions taken to implement learner autonomy initiatives become ever more crucial to the success in any attempt to develop learner autonomy. It is also evident that learner autonomy has been widely practised in the West, but it has only been gradually taking root in some institutions or in some smaller cosmos such as specific classrooms or departments, but not across the entire educational system. In fact, the extent to which language learners are encouraged to develop into autonomous learners differs inter-individually and intra-individually across smaller cosmos and countries. If learner autonomy is regarded as a universal competence that all learners should aim to achieve, contemporary experiences as reported in the chapters in this book show some kind of parallels and diversity. Evidently, in this world of internationalisation (Byram, 2012), learner autonomy is one of the key competences that any successful learner should be in possession of.

Over 2500 years ago, the Chinese sage, Confucius, said, "give a man a fish, and he finishes it in a day; teach him to fish, and he has fish all

his life time." This common quotation is a testimony that Chinese culture does encourage students to learn to be independent. But somehow, a paradoxical situation seems to be repeating itself. Students want independence, but at the same time they want the guidance they need in order to feel secure about what they are endeavouring to achieve. Such a situation might point to what was discussed in Benson (2016, this book) as well as other scholars (e.g., Little, 2007; Nunan, 1997) that learner development is actually a continuum, or in their expression, a degree. The concept of autonomy is not binary, as I have discussed at the beginning of this chapter.

Therefore, teachers' understanding of learner autonomy and the way they practise it are in effect an embodiment of the sociocultural conditioning on developing learner autonomy. As part of their metacognitive knowledge mediated by their metacognitive experiences, teachers' beliefs about learner autonomy need to be understood in their specific sociocultural context. In order to implement learner autonomy successfully in specific contexts in Asia, teachers might need to work collaboratively towards independence by negotiating personalised curricula for students and practising what they believe in. Such concerted effort can be combined with other available teacher professional development programmes that will enable these teachers to think differently for benefitting their students in improving language proficiencies and competencies. Doing so will stimulate teachers' thinking about what learner autonomy entails, the benefit students get, and possible impact on life-long learning (see also Yashima, 2013). After all, as Gao (2013) posited, a crucial link between agency and autonomy can be established using "reflexive and reflective thinking" (p. 191).

The reports in this book were conceptualised in such a way that similar research methods were employed for easy comparison. Indeed, this has turned out to be the case in the end. What I would like to suggest is that we explore how teacher autonomy and learner autonomy develop hand in hand, and we can do so by employing other less commonly used methods among colleagues whose main thrust of interest is in language learner autonomy. Two methods have come to my mind. They are all introspective in nature, but a bit different in practice: Think-aloud protocol analysis and stimulated recall. These two methods might be able to offer us new information about individual differences that are otherwise undetectable through the use of a questionnaire such as the one adopted for use in all the studies in this book.

Think-aloud protocol analysis is a method that allows subjects to verbalise their thoughts or thinking processes while they are completing a learning task. Human working memory is typically short, so things tend to be forgotten if the time interval between the task completion event and the recall is too distant. The shorter the interval, the more details subjects can recall about what has happened (Ericsson & Simon, 1993). Because of our working memory constraint, verbalisation of thought processes that involve a longer duration does not usually lead to a recollection of accurate details (Ericsson, 2002; Ericsson & Simon, 1993; Ericsson & Moxley, 2010). So, in examining what language learners do and how they develop autonomy, a relevant use of this research tool is to invite them to talk about what activities they do every day and why they are interested in being involved in them. Given the large numbers of studies using this research tool in the field of foreign / second language education (e.g., Gu, Hu, & Zhang, 2005; Smagorinsky, Daigle, O'Donnell-Allen, & Bynum, 2010; Zhang, 2001b), it should be a useful means for gathering data on how learners develop (or do not want to develop) autonomy. However, this kind of concurrent think-aloud is not easy to implement in situations where subjects all participate in one event as a group. That is why stimulated recall as a research method was recommended to complement the concurrent think-aloud method (see Gass & Mackey, 2015). As the name of the method indicates, in order to help subjects to retrieve the information, the researcher needs to provide some kind of stimulus that will enable or help the subjects to recall what has just happened. The stimulus can be in different forms.

Typically, when a lesson or language learning episode is recorded or videotaped, and if the purpose is to find out what the student thinks, then the tape can be played to him to help him think about what his thinking processes were when the event was taking place. If these tools are used in researching language learner autonomy, and with the wisdom gathered over the last 40 years in the field of language learner autonomy, I anticipate that richer and thicker data about individuals' (both teachers and students) decision-making processes will be made available for us to reflect upon the mammoth that we call language learner autonomy. Using these methods will also potentially uncover many of the unobservable cognitive processes that are shaped by the sociocultural contexts in which students learn a foreign language; they will equally usefully better understand how our students as dynamic systems themselves develop autonomy and take charge of their own learning through metacognitive manoeuvring.

References

Barnard, R., & Li, J. (2016). Introduction. In R. Barnard, & J. Li (Eds.), *Language learner autonomy: Research into teachers' beliefs and practices in East Asian contexts.* Phnom Penh, Cambodia: IDP Education Cambodia.

Benson, P. (2001). *Teaching and researching autonomy in language learning*. Harlow, England: Longman.

Benson, P. (2003). Learner autonomy in the classroom. In D. Nunan (Ed.), *Practical English language teaching* (pp. 289-308). New York: McGraw Hill.

Benson, P. (2006). Autonomy in language teaching and learning. *Language Teaching 40*, 21-40.

Benson, P. (2011). *Teaching and researching autonomy in language learning* (2nd ed.). Harlow, UK: Longman.

Benson, P. (2016). Language learner autonomy: Exploring teachers' perspectives on theory and practice. In R. Barnard & J. Li, (Eds.), *Language learner autonomy: Research into teachers' beliefs and practices in East Asian contexts.* Phnom Penh, Cambodia: IDP Cambodia.

Borg, S., & Al-Busaidi, S. (2012). Teachers' beliefs and practices regarding learner autonomy. *ELT Journal*, *66*(3), 283-292. http://dx.doi.org/10.1093/elt/ccr065

Byram, M. (2012) A note on internationalisation, internationalism and language teaching and learning. *Language Learning Journal*, *40*(3), 375-381. http://dx.doi.org/10.1080/09571736.2011.642528

Canagarajah, S. (2007). Lingua franca English, multilingual communities, and language acquisition. *Modern Language Journal*, *91*(sl), 923–939.

Chamot, A. U., & Rubin, J. (1994). Comments on Janie Rees-Miller's "A critical appraisal of learner training: Theoretical bases and teaching implications". *TESOL Quarterly*, *28*(4), 771-776.

Cohen, A. D. (2007). Coming to terms with language learner strategies: Surveying the experts. In D. C. Cohen & E. M. Macaro (Eds.), *Language learner strategies* (pp. 29-45). Oxford, UK: Oxford University Press.

Cohen, A. D., & Griffith, C. (2015). Revisiting LLS research 40 years later. *TESOL Quarterly*, *49*(2), 414-429. http://dx.doi.org/10.1002/tesq.225

Cohen, A. D., & Macaro, E. (Eds.). (2007). *Language learner strategies: Thirty years of research and practice*. Oxford, UK: Oxford University Press.

Cotterall, S., & Murray, G. (2009). Enhancing metacognitive knowledge: Structure, affordances and self. *System, 37*(1), 34-45.

Darasawang, P., & Watson Todd, R. (2012). The effect of policy on English language teaching at secondary schools in Thailand. In E. Low & A. Hashim (Eds.), *English in Southeast Asia: Features, policy and language in use* (pp. 207-220). Amsterdam, the Netherlands: John Benjamins. http://dx.doi.org/10.1075/veaw.g42.17dar

Dardjowidjojo, S. (2001). Cultural constraints in the implementation of learner autonomy: The case in Indonesia. *Journal of Southeast Asian Education, 2*(2), 309-322.

de Bot, K., Lowie, W., & Verspoor, M. (2007). A dynamic systems theory approach to second language acquisition. *Bilingualism: Language and Cognition*, *10*(1), 7-21. http://dx.doi.org/10.1017/S1366728906002732

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior.* New York, NY: Plenum.

Duong, T. H. O. (2011). *Tertiary education in America and in Vietnam: Educational structure and learner autonomy.* Ho Chi Minh City, Vietnam: VNU-HCM Publishing House.

Ellis, R. (1994). *The study of second language acquisition.* Oxford, UK: Oxford University Press.

Ericsson, A. K., & Simon, H. A. (1993). *Protocol analysis: Verbal reports as data.* Cambridge, MA: MIT Press.

Ericsson, K. A. (2002). Toward a procedure for eliciting verbal expression of nonverbal experience without reactivity: Interpreting the verbal overshadowing effect within the theoretical framework for protocol analysis. *Applied Cognitive Psychology*, *16*(8), 981-987. http://dx.doi.org/10.1002/acp.925

Ericsson, K. A., & Moxley, J. (2010). Thinking aloud protocols: Concurrent verbalizations of thinking during performance on tasks involving decision making. In M. Schulte-Mecklenbeck, A. Kuehberger, & R. Ranyard (Eds.), *Handbook of process tracing methods for decision research* (pp. 89-114). New York, NY: Psychology Press.

Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist, 34*(10), 906-911. http://dx.doi.org/10.1037/0003-066X.34.10.906

Gagné, R. M. (1977). *The conditions of learning* (3rd ed.). New York: Holt, Rinehart and Winston.

Gao, X. (2007). Has language learning strategy research come to an end? A response to Tseng *et al.* (2006). *Applied Linguistics, 28*(4), 615-620. http://dx.doi.org/10.1093/applin/amm034

Gao, X. (2013). Reflexive and reflective thinking: A crucial link between agency and autonomy. *Innovation in Language Learning and Teaching, 7*(3), 226-237. http://dx.doi.org/10.1080/17501229.2013.836204

Gao, X., & Zhang, L. J. (2011). Joining forces for synergy: Agency and metacognition as interrelated theoretical perspectives on learner autonomy. In G. Murray, X. Gao, & T. Lamb (Eds.), *Identity, motivation and autonomy in language learning* (pp. 25-41). Bristol, UK: Multilingual Matters.

Gass, S., & Mackey, A. (2015). *Stimulated recall methodology in second language research* (2nd ed.). New York, NY: Routledge.

Gieve, S., & R, Clark (2005). "The Chinese approach to learning": Cultural trait or situated response? The case of a self-directed learning programme. *System, 33*(2), 261-276.

Grenfell, M., & Macaro, E. (2007). Claims and critiques. In A. D. Cohen & E. Macaro (Eds.), *Language learner strategies: Thirty years of research and practice* (pp. 9-28). Oxford, UK: Oxford University Press.

Gu, P. Y., Hu, G., & Zhang, L. J. (2005). Investigating language learner strategies among lower primary school pupils in Singapore. *Language and Education, 19*(4), 281-303. http://dx.doi.org/10.1080/09500780508668682

Holec, H. (1981). *Autonomy and foreign language learning*. Oxford, UK: Pergamon Press.

Jang, H., Reeve, J., & Deci, E. L. (2010). Engaging students in learning activities: It is not autonomy support or structure but autonomy support and structure. *Journal of Educational Psychology, 102*(3), 588-600. http://dx.doi.org/10.1037/a0019682

Kaplan, A. (2008). Clarifying metacognition, self-regulation, an self-regulated learning: What's the purpose? *Educational Psychology Review, 20*, 477-484. http://dx.doi.org/10.1007/s10648-008-9087-2

Lai, C. (2015). Modeling teachers' influence on learners' self-directed use of technology for language learning outside the classroom. *Computers and Education, 82*, 74-83.

Larsen Freeman, D., & Cameron, L. (2008b). Research methodology on language development from a complex systems perspective. *Modern Language Journal, 92*(2), 200–213.

Larsen-Freeman, D., & Cameron, L. (2008a). *Complex systems and applied linguistics*. Oxford, UK: Oxford University Press.

Lave, L., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation.* Cambridge, UK: Cambridge University Press. http://dx.doi.org/10.1017/CBO9780511815355

Little, D. (1991). *Learner autonomy. 1: Definitions, issues and problems*. Dublin: Authentik.

Little, D. (2007). Language learner autonomy: Some fundamental considerations revisited. *Innovation in Language Learning and Teaching, 1*(1), 14-29. http://dx.doi.org/10.2167/illt040.0

Littlewood, W. (1999). Defining and developing autonomy in East Asian contexts. *Applied linguistics, 20*(1), 71-94. http://dx.doi.org/10.1093/applin/20.1.71

Macaro, E. (2008). The shifting dimensions of language learner autonomy. In T. E. Lamb & H. Reinders (Eds.), *Learner and teacher autonomy: Concepts, realities and responses* (pp. 43-62). Amsterdam, the Netherlands: John Benjamins. http://dx.doi.org/10.1075/aals.1.07mac

Murray, G. (2011). Imagination, metacognition and the L2 Self in a self-access learning environment. In G. Murray, X. Gao, & T. Lamb (Eds.), *Identity, motivation and autonomy in language learning* (pp. 75-91). Bristol, England: Multilingual Matters.

Naiman, N., Fröhlich, M., Stern, H. H., & Todesco, A. (1978/1996). *The good language learner.* Clevedon, Avon, England: Multilingual Matters (originally published 1978 in Toronto: Ontario Institute for Studies in Education).

Nunan, D. (1997). Designing and adapting materials to encourage learner autonomy. In P. Benson & P. Voller (Eds.), *Autonomy and independence in language learning* (pp. 192-203). London: Longman.

Nunan, D., & Richards, J. C. (Eds.). (2015). *Language learning beyond the classroom*. London, UK: Routledge.

Núñez, J. L., Fernández, C., León, J. L., & Grijalvo, F. (2015). The relationship between teacher's autonomy support and students' autonomy and vitality. *Teachers and Teaching, 21*(2), 191-201. http://dx.doi.org/10.1080/13540602.2014.928127

O'Malley, J. M., & Chamot, A. U. (1990). *Learning strategies in second language acquisition.* Cambridge, UK: Cambridge University Press.

Oxford, R. L. (2011). *Teaching and researching language learning strategies.* White Plains, NY: Pearson Education.

Rees-Miller, J. (1993). A critical appraisal of learner training: Theoretical bases and teaching implications. *TESOL Quarterly, 27*, 679-689.

Reeve, J., Deci, E. L., & Ryan, R. M. (2004). Self-determination theory: A dialectical framework for understanding socio-cultural influences on student motivation. In D. M. McInerney & S. Van Etten (Eds.), *Big theories revisited* (pp. 31–60). Greenwich, CT: Information Age.

Rose, H. (2012). Reconceptualizing strategic learning in the face of self-regulation: Throwing language learning strategies out with the bathwater. *Applied Linguistics, 33*(1), 92-98.

Rubin, J. (1975). What the "good language learner" can teach us. *TESOL Quarterly, 9*(1), 41-51.

Smagorinsky, P., Daigle, E. A., O'Donnell-Allen, C., & Bynum, S. (2010). Bullshit in academic writing: A protocol analysis of a high school senior's process of interpreting *Much Ado about Nothing. Research in the Teaching of English, 44*, 368-405.

Stern, H. H. (1975). What can we learn from the good language learner? *Canadian Modern Language Review, 34*, 304-318.

Stewart, A., & Irie, K. (2012). Realizing autonomy: Contradictions in practice and context. In K. Irie & A. Stewart (Eds.), *Realizing autonomy: Practice and reflection in language education contexts.* Basingstoke, UK: Palgrave Macmillan.

Tseng, W. T., Dörnyei, Z., & Schmitt, N. (2006). A new approach to assessing strategic learning: The case of self-regulation in vocabulary acquisition. *Applied Linguistics, 27*, 78-102.

Ushioda, E. (2011). Why autonomy? Insights from motivation theory and research. *Innovation in Language Learning and Teaching, 5*(2), 221-232. http://dx.doi.org/10.1080/17501229.2011.577536

Watson Todd, R. (1996). The development learning independence in language learning. In *Proceedings from Autonomy 2000.* Thonburi, Bangkok, Thailand.

Wenden, A. (1998). Metacognitive knowledge and language learning. *Applied Linguistics, 19*(4), 515-537.

Yashima, T. (2013). Individuality, imagination and community in a globalizing world: An Asian EFL perspective. In P. Benson & L. Cooker (Eds.), *The applied linguistic individual: Sociocultural approaches to identity, agency and autonomy* (pp. 46-58). Sheffield, UK: Equinox.

Zhang, L. J. (2001a). Awareness in reading: EFL students' metacognitive knowledge of reading strategies in an acquisition-poor environment. *Language Awareness,* 10(4), 268-288.

Zhang, L. J. (2001b). Nurturing ESL reader autonomy. *RELC Guidelines: A Magazine for Language Teachers, 23* (1), 36-40.

Zhang, L. J. (2003). Research into Chinese EFL learner strategies: Methods, findings and instructional issues. *RELC Journal, 34*(3), 284-322. http://dx.doi.org/10.1177/003368820303400303

Zhang, L. J. (2008). Constructivist pedagogy in strategic reading instruction: Exploring pathways to learner development in the English as a second language (ESL) classroom. *Instructional Science, 36*(2), 89-116. http://dx.doi.org/10.1007/s11251-007-9025-6

Zhang, L. J. (2010a). A dynamic metacognitive systems account of Chinese university students' knowledge about EFL reading. *TESOL Quarterly, 44*(2), 320-353. http://dx.doi.org/10.5054/tq.2010.223352

Zhang, L. J. (2010b). Negotiating language, literacy and identity: A sociocultural perspective on children's learning strategies in a multilingual ESL classroom in Singapore. *Applied Linguistics Review, 1*(1), 247-270. http://dx.doi.org/10.1515/9783110222654.247

Zhang, L. J., & Zhang, D. (2013). Thinking metacognitively about metacognition in second and foreign language learning, teaching, and research: Toward a dynamic metacognitive systems perspective. *Contemporary Foreign Languages Studies, 396*(12), 346-361. http://dx/doi.org/10.3969/j.issn.1674-8921.2013.12.010

Zheng, Y. (2012). *Dynamic vocabulary development in a foreign language.* New York, NY: Peter Lang.