

A Critical Review of Lightbown and Spada 'Factors Affecting Second Language Learning'

Zelei Lian 2306368

word count (excluding references): 2195

Introduction

Any research juxtaposing L1 and L2 acquisition will immediately make bare the stark contrast in learners' outcome. While L1 learners in normal circumstances are all ultimately successful, L2 learners are denied guaranteed success. In fact, anyone could easily observe that their achievement varies greatly. The natural question to ask is why? Why are some L2 learners effortlessly successful but not others? What individual differences and learner characteristics could explain the differentiated rate of acquisition? And how could research into individual differences mediate language instruction?

Over the past few decades, a large number of biological, psychological and social, cognitive and affective learner variables, such as age, motivation, and aptitude, have been mooted for discussion and research, yielding diverse results. The scope of the factors, the significance and relevance of each factor, or even the taxonomy of these factors seems to remain equivocal. Moreover, new research continues to shed light on the complex interplay of these factors and it is not uncommon to witness some factors fading in academic interest while others receive more attention.

For example, Lightbown and Spada (2001) have proposed a total of seven factors of varying relevance to the success of L2 acquisition:

- Intelligence
- Aptitude
- Personality
- Motivation and attitudes
- Learner preferences
- Learner beliefs
- Age of acquisition

But when the same authors return to this topic a dozen years later, Lightbown and Spada (2013) have reconfigured their list of eight factors:

- Intelligence
- Learner learning aptitude
- Learning styles
- Personality
- Attitudes and motivation
- Identity and ethnic group affiliation
- Learner beliefs
- Age

When we compare the two lists that are about a decade apart by the same researchers, it becomes evident that while some classic factors remain, such as age, aptitude and motivation, others have undergone some changes. For example, the new list has placed more focus on the social factor, thus the addition of a distinct factor of “identity and ethnic group affiliation”. In the treatment of individual factors, we will also observe some shift of academic attention. Working Memory (WM), Learner Anxiety, and Willingness to Communicate (WTC), which are all ostensibly absent in Lightbown and Spada (2001), are enthusiastically discussed in Lightbown and Spada (2013).

Using Lightbown and Spada (2001, 2013) as an entry point, this critical review briefly surveys the factors affecting second language acquisition, discusses their varying degrees of validation by research, and considers their pedagogical implication. In the process, one particular factor, i.e. motivation, is singled out for a fuller explication to demonstrate in some detail how ongoing research on SLA factor analysis is carried out and how their rich findings trickle to classroom instruction.

Factors Affecting Second Language Learning

Lightbown and Spada (2001, 2013) begin their L2 factor analysis by acknowledging the limitation of current research methods. A principal methodology in carrying out SLA ‘factor’ research is usually in two steps. One, single out one factor. Two, correlate measures of this particular factor with L2 attainment. Lightbown and Spada (2001) gives an example. Tests are administered to attain score of both a learner’s motivation and language proficiency. Researchers then apply numerical analysis to establish a positive correlation or a negative one. So a positive correlation would mean that the higher a learner’s motivation is, the higher their L2 attainment level would be.

However, the straightforward methodology belies uncomfortable flaws that worry researchers. For Lightbown and Spada (2001), one problem is that not all factors can be easily translated into accurate numerical expression, and factors are not easily to pin down as distinct entities. The same is true of language proficiency, which is difficult to measure when there are apparently very different components in it. A second problem regards the interpretation of the correlation. Statisticians have always known the mantra

“correlation does not imply causation” by heart (Spiegelhalter, 2019, p. 87), and statistically speaking, “while it may be that one factor influences the other, it may also be the case that both are influenced by something else entirely” (Lightbown and Spada, 2001, p. 30). Nevertheless, Lightbown and Spada (2013) believe these flaws do not negate the contribution of SLA factor studies to further our understanding how different learner variables are related to their second language learning. It may well be as de Bot has argued, that “all individual factors strongly interact and that these interactions are constantly changing while the process of L2 acquisition proceeds” (2005, p. 75).

Intelligence, as is recorded in ‘IQ’ tests, has long been hailed as a crucial indicator for future success. It is also believed to have played an important role in SLA. By citing case studies, Lightbown and Spada (2001) report that intelligence “may be a strong factor when it comes to learning which involves language analysis and rule learning” (2001, p. 31). Since Howard Gardner’s (1993) Multi Intelligence theory gained traction, intelligence has been used an umbrella term to cover a wide range of abilities, and research on intelligence as a distinct factor in L2 attainment has much waned. Moreover, intelligence has limited use in a classroom where focus is usually given to communication and interaction (Lightbown and Spada, 2001).

Aptitude, usually measured in Modern Language Aptitude Test (MLAT) and Pimsleur Language Aptitude Test (PLAB), is a set of specific abilities that predict L2 learning success including the ability to “identify and memorize new sounds, understand the function of words in sentences, figure out grammatical rules from language sample, and remember new words” (Lightbown and Spada, 2001, p. 31). Strength in different components, as are reported by Lightbown and Spada (2001) may well correspond to success in different areas of L2 proficiency. An interesting shift of attention can be found in the absence of Working Memory (WM) in Lightbown and Spada (2001) but full presence in Lightbown and Spada (2013). This indicates that while initially much overlooked, WM is now seen as a crucial factor.

Personality is an obvious candidate factor but is also notoriously difficult to demonstrate or replicate in empirical studies. Lightbown and Spada (2001) report on studies on inhibition and how it negatively affects L2 learning progress. Studies on personality traits are far from exhausted yet. Lightbown and Spada (2013) adds “learner anxiety” and “willingness to communicate” (WTC) as two recent extensively researched areas that have continued to fascinate scholars. However, personality as a factor suffers from its inconstancy. After all, personality traits can be fleeting, especially among adolescents. This naturally poses difficult questions for the research validity in a quantitative approach (Ellis, 2015). However, Lightbown and Spada believe personality still has huge research potential. Further studies may find that personality does not work alone but would “combine with other factors to influence second language learning” (Lightbown and Spada, 2013, p. 86).

Learning preferences, or learning styles, are individual differences in learners' preferred style to learn. These may be visual, aural, kinesthetic and so on (Lightbown and Spada, 2001). One area that has received considerable attention is the contrast of field independence and field dependence, differentiated by whether a learner separates the details from the background information. Lightbown and Spada (2001) report that field independence is strongly associated with L2 success but would requires further confirmation (Lightbown and Spada, 2013). The research findings are most useful to educators because of its huge pedagogical potential and the attention on student needs. But so far it has been difficult to establish the exact relationship.

Learner beliefs are learners' opinions about how they should be instructed. There is often a mismatch between a learner's expectation and that of a teacher. For example, Lightbown and Spada (2013) report that while most students would like to have their errors corrected right after they make one, teachers usually find the practice less desirable. Learner beliefs, whether they are misinformed or not, could be valuable information for teachers to "develop greater flexibility in their way of approaching language learning" (Lightbown and Spada, 2001, p. 36).

Age may well be a crucial factor affecting second language learning and also the most debated and controversial one. Children seem to pick up L2 fluency quicker than adults. To what extent is the statement true? One seminal theory to answer this question is the Critical Period Hypothesis (CPH), a bold conjecture that there exists a biological base in children for a predisposed success in language learning, which is innate unlike other general skills that adults can consciously pick up (Lightbown and Spada, 2013). It is important to note after decades of research, CPH remain a hypothesis. Scholars still disagree when the critical period ends, with some arguing around puberty, while more recent research points to a much later stage to about 17 years old (Hartshorne, Tenenbaum and Pinker, 2018). While the assumption that children are better language learners has some truth to it, for example in phonological attainment, the real picture is much more complex. Lightbown and Spada (2001, 2013) report that adult learners have their own advantages such as rate of learning. Currently we can only conclude that evidence for the critical period hypothesis is mixed. As for its implication for pedagogy, teachers may appreciate the early start advantages while tailoring approaches for adult learners, adjust expectation between different age groups and focus on more achievable goals.

Overall, Lightbown and Spada (2001, 2013) have introduced some of the most important factors affecting second language learning, and have given impartial surveys of each factor, including the most important case studies and their conclusions. They are especially careful in weighing the evidence and do not shy away from discussing methodological limitation of the field. By incorporating recent research and updating their writing, it is an invaluable introductory guide for students and teachers alike.

Motivation and Second Language Learning

Motivation is one of the most fascinating factors affecting second language learning in that so much mystery surrounds it. Though the precise construct of motivation is still subject to heated debates, it is generally understood to refer to “the desire to initiate L2 learning and the effort employed to sustain it” (Ortega, 2009, p. 168). Common sense would lead us to believe that high motivation leads to success in L2 proficiency, but decades of research paint a rather blurry picture, showing the process is anything but straightforward and the causal relationship is difficult to establish.

This is due to the inherent challenges in conducting research on motivation. Dörnyei and Ushioda (2021) have identified three such methodological pitfalls: motivation is abstract and cannot be directly observed, thus reliance on indirect indicators; motivation is itself a complex and multidimensional construct that defies easy categorization; and motivation is ever-changing, inconstant and dynamic, difficult for any test to accurately capture, let alone measure. Nonetheless, with careful design and handling of data, it is possible to carry out meaningful probes into the mechanisms of how motivation operates.

Lightbown and Spada (2001) introduce us to the pioneering work by Robert Gardner and his colleagues in Canada since the 1960s. Their work is the first systematic attempt to quantifying motivation through an ingeniously designed socio-educational model using large survey studies. Using the famous Attitude/Motivation Test Battery (AMTB), they have proposed the important distinction between integrative motivation and instrumental motivation, with the former referring to “language learning for personal growth and cultural enrichment” and the latter “language learning for more immediate or practical goals” (Lightbown and Spada, 2001, p. 33). Both types of motivation are about social contexts, and heavily influence how and whether learners will make use of opportunities to engage in learning. In this social context, Lightbown and Spada (2001) remind us power dynamic will also influence a learner’s willingness to learn.

This focus on the social context has gradually shifted to the classroom context, where it is expected that teachers can use educational psychology to better motivate students through the methods of, for example, motivating students into the lesson; varying the activities, tasks, and materials; and using co-operative rather than competitive goals (Lightbown and Spada, 2001, p. 34).

As globalization propels English into a *de facto* lingua franca status, the old socio-educational model seems to make less sense (VanPatten, 2020). For example, integrative motivation makes more sense in a Canadian context, where French and English are both legally official languages, than in countries such as China where learners learn English as a foreign language without the need to have apparent affinity for English speaking countries. In this context, one of the recent major contributions on motivation is from Zoltan Dörnyei and his idea of the learner’s self-concept, which he

calls the L2 motivational self-system consisting of three aspects:

- ‘Ideal L2 Self’, a powerful motivator to learn the particular language because we would like to reduce the discrepancy between our actual and ideal selves.
- ‘Ought-to L2 Self’, referring to the attributes that we believe we ought to possess to avoid possible negative outcomes.
- ‘L2 Learning Experience’, which concerns executive motives related to the immediate learning environment and experience.

(Dörnyei *et al.*, 2006, p. 145)

This is another example of how research in psychology benefits studies in motivation in a second language learning setting, according to which the discrepancy between the actual self and the ideal self allows researchers and educators to understand motivation better. Current research tends to agree that learner’s self-concept is a powerful factor that influences how far a L2 learner can go on the acquisition journey. As an active field of research, we will have to rely on further studies on motivation to make manifest its inner workings and how educators can best harness its power.

References

- de Bot, K., Lowie, V., and Verspoor, M. (2005) *Second language acquisition: a source book*. London: Routledge.
- Dörnyei, Z., Csizér, K., and Németh, N. (2006) *Motivational dynamics, language attitudes and language globalisation: a Hungarian perspective*. Clevedon: Multilingual Matters.
- Dörnyei, Z. and Ushioda, E. (2021) *Teaching and researching motivation*. 3rd edn. London: Routledge.
- Ellis, R. (2015) *Understanding second language acquisition*. 2nd edn. Oxford: Oxford University Press.
- Gardner, H. (1993) *Frames of mind: the theory of multiple intelligences*. New York: Basic Books.
- Hartshorne, J. K., Tenenbaum, J. B., and Pinker, S. (2018) 'A critical period for second language acquisition: evidence from 2/3 million English speakers', *Cognition*, 177, pp. 263-277. Available at: <https://doi.org/10.1016/j.cognition.2018.04.007>
- Lightbown, P. M. and Spada, N. (2001) 'Factors affecting second language learning', in Candlin, C. N. and Mercer, N. (eds) *English language teaching in its social context: a reader*. London: Routledge, pp. 28-43.
- Lightbown, P. M. and Spada, N. (2013) *How languages are learned*. 4th edn. Oxford: Oxford University Press.
- Ortega, L. (2013) *Understanding second language acquisition*. New York: Routledge.
- Spiegelhalter, D. (2019) *The art of statistics: learning from data*. London: Penguin Books.
- VanPatten, B., Smith, M., and Benati, A. G. (2020) *Key questions in second language acquisition: an introduction*. Cambridge: Cambridge University Press.