

Book Reviews

Sensitive Periods, Language Aptitude, and Ultimate L2 Attainment

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The volume *Sensitive Periods, Language Aptitude, and Ultimate L2 Attainment* (eds. G. Granena and M. Long) focuses on the individual characteristics involved in second language acquisition (SLA). When discussing SLA, we usually take into consideration various factors which might account for ultimate attainment, or lack thereof, in second language (L2). These factors are usually classified into three main categories: the language learner's individual characteristics, setting and input, and typological proximity/distance between L1 and L2. The first category includes age of onset, language aptitude, intelligence, beliefs and expectations, personality and motivation. It is this group of factors that the chapters in this volume focus on.

The book comprises eleven chapters organized into four sections: Part I, "Age Differences and Maturational Constraints"; Part II, "Aptitude Constructs and Measures"; Part III, "Age, Aptitude and Ultimate Attainment"; and Part IV, "Implications for Educational Policy and Language Teaching." Each chapter follows a

similar pattern: It opens with a short abstract presenting rationale, purpose, and conclusions of the researcher, and ends with a concluding section which reiterates these elements and adds implications for future research. This makes the volume very accessible and reader-friendly.

Part I: "Age Differences and Maturation Constraints"

The volume opens, quite appropriately, with Long's chapter on maturational constraints on child and adult SLA. It is an appropriate first chapter as it presents the long-standing debate over the critical period hypothesis (CPH). First, Long explains why it is preferable to use *sensitive* periods (SPs) rather than *critical* periods and then suggests eight reasons for the lack of consensus, which boil down to either methodological flaws or confusion of terms and explanations. The chapter is comprehensive and its arguments are clear, sound and convincing. The chapter ends by listing ten positive developments in understanding maturational constraints such as the "emerging consensus as to the criteria of SP" (p. 30), specifying the linguistic features subject to SP, refining research methods, the use of bilinguals as a control group instead of native speakers, and so on. Both researchers and practitioners stand to profit from these developments as the findings researchers come up with will provide a solid foundation for the practitioners' decisions in the field.

Spadaro's Chapter 2 presents an empirical study focusing on the effects of sensitive periods in one linguistic domain; lexical and collocational knowledge in L2. The study compares the associative webs, word discrimination and multi-word units of native speakers (NSs) and nonnative speakers (NNSs). Variables like age of onset (AO), length of residence and education level are all accounted for. The test materials used in the research are all well-known tests but adapted for the purposes of the specific study. The results indicate that patterns of associations of very advanced NNSs and NSs are quite similar, showing a preference for paradigmatic associations. In the other tasks NSs outscored NNSs, but the difference was smaller when the AO of the NNSs was between 0 and 6 years of age. Not surprisingly, in all seven tasks NSs outperformed NNSs. An even more important finding, which provides support for the author's claim of SP, is that in each case the learners with the 0-6 AO outperformed the learners who started later. Yet the degree of success with the lexicon of the late starters was quite impressive and would seem to undermine the importance of SPs. Despite this, the author believes that the issue of SPs remains quite important, first, as there are many more unsuccessful L2 learners, and, second, as this might set more realistic and attainable goals in the language learning program. This is quite true and makes the author's line of argumentation convincing. The chapter ends by suggesting lines of enquiry to be researched. The review of literature would have

benefitted from a choice of more recent articles. Unfortunately, only four of the 50 references were published after 2000. In addition, there are minor discrepancies such as the following: In Table 1, page 56, Group 1 with the 0–6 AO apparently includes only one member, whereas on page 50 the number given is 13; on page 65 we read that “syntagmatic and collocational links [are an] important feature of mature native-like linguistic competence,” but on page 47 we read that “normal adults have a marked preference for paradigmatic responses . . .” Some clarification would be in order.

Chapter 3, contributed by Bylund, Abrahamsson and Hylstenstam, explores the role of bilingualism and its effect on L2 ultimate attainment. The chapter opens by discussing the “frameworks, arguments and empirical findings that directly or indirectly address the question of the effect of bilingualism on ultimate attainment” (p. 71). The frameworks discussed are Cook’s multicompetence framework, Flege’s speech learning model, MacWhinney’s competition model, and, finally, the interference hypothesis. What these four frameworks share is the fact that the difference in ultimate attainment may be the result of “L1 entrenchment.” The writers present empirical evidence validating each of these frameworks. The chapter does not ignore the counter-evidence for the bilingualism effects: native-like L2 ultimate attainment, positive relationship between L1 and L2 proficiency, ultimate attainment in simultaneous bilinguals and low L2 proficiency of international adoptees if adopted after age 2.

Part II: “Aptitude Constructs and Measures”

In Chapter 4, Granena reports a validation study of one of the most popular language aptitude test, namely the LLAMA (Meara, 2005). This is extremely important in light of the wide use of LLAMA in various studies involving language aptitude and ultimate attainment. The study aims at evaluating the reliability of the test and examining its structure. After describing the LLAMA test, Granena reviews 11 studies in which the test has been used and concludes that they all point to a correlation between LLAMA and L2 measures “that call for the use of analytical, metalinguistic abilities and with L2 learning under explicit instructional treatments or feedback conditions” (p. 112). Then she sets out to assess the reliability of the test by examining the internal consistency and test-retest reliability. The results for both components were moderate but acceptable. The analysis of the structure of the LLAMA showed that the test measures two types of ability: analytical, which is essential in explicit language learning, and sequence learning ability required for implicit language learning. Granena concludes by suggesting further research into the relationship between implicit processes and individual differences in language acquisition.

Chapter 5 by Kormos provides a logical continuation of the examination of language aptitude and other cognitive abilities like working memory and phonological short-term memory, both of which might explain ultimate attainment. The chapter opens with a critical discussion of language aptitude and endorses the latest view that language aptitude is not a unitary construct but consists of a number of “cognitive abilities that can assist in the different stages of language learning” (p. 141). The author proceeds by discussing the role of multiple cognitive individual difference factors in language-learning processes. The graphic organizer, Figure 2, p. 142, presents the material in a clear, succinct way. It shows that, whereas in the initial stage of language learning (input processing) the cognitive abilities required are working memory, phonological short-term memory, phonological sensitivity, inductive ability, and metalinguistic awareness, at the final stage of language learning (automatization) the two major *sine qua non* are working memory and perceptual speed.

No less important is the issue of the stability of language aptitude. On the basis of evidence from numerous studies (one of them her own, conducted in 2008), Kormos comes to the conclusion that certain components of language aptitude such as phonological sensitivity and metalinguistic awareness are subject to change with intensive L2 instruction. The chapter ends with the reservation that even though cognitive characteristics might be important in L2 ultimate attainment, affective and conative characteristics as well as previous language learning experience “might be more significant contributors” (p. 147).

Chapter 6 by Doughty presents a new language aptitude test, the High-level Language Aptitude Battery (Hi-LAB) designed specifically to measure the aptitude of more advanced L2 learners. It differs from other language aptitude tests in that it aims at predicting ultimate attainment for late post-critical-period learners, that is, identifying individuals with exceptional learning potential. The conclusions in the chapter are somewhat different from the conclusions in Chapter 5, as Doughty asserts that language aptitude (cognitive abilities) determines ultimate attainment in late starters. However, Doughty shares with Kormos the view that aptitude is a composite construct and therefore her aptitude test produces aptitude profiles consisting of multiple components. As the validity and reliability tests proved the Hi-LAB to be quite accurate, the profiles it generates can be used for diagnostic purposes when choosing trainees for language learning. More importantly, intervention programs for struggling L2 learners might be developed based on this test. “The fundamental goal is to reduce the time, effort and cost of learning languages” (p. 173). In my opinion, this might also serve to reduce teacher and student demotivation in the process of teaching/learning a language by setting attainable goals.

Part III: "Age, Aptitude and Ultimate Attainment"

This part of the volume presents three empirical studies that demonstrate the relationship between age of onset, language aptitude and ultimate attainment. Granena's study was prompted by the lack of research on long-term L2 achievement in naturalistic settings. It aimed at finding out the relationship between adult L2 ultimate morphosyntactic attainment and language aptitude. For this purpose, the researcher used auditory and written grammaticality judgment tests (GJTs) as well as sentences with different levels of syntactic complexity. The results of the study showed that aptitude was a factor in only one of these tests, namely the written GJT. The researcher explains this result by pointing out that the GJT task allowed the L2 subjects enough time to reflect on language errors/structures and correct what they considered erroneous statements. Test modality was, however, irrelevant for the native speaker control group. Granena is well aware of the fact that the results are contingent on how language aptitude is defined and measured. Therefore, she recommends further research using different aptitude components, as well as L2 learners with different AOs.

Bolibaugh and Foster's study is similar to Granena's study in that it examines late acquirers of L2 immersed in the target language. However, here, receptive knowledge of collocations, or as the researchers call them, "conventional word combinations" (p. 205) represents the measure of attainment. The factor studied is phonological short-term memory. However, amount of exposure to the target language and motivation to interact with native speakers are also accounted for. The authors conclude that exposure to the target language, phonological short-term memory and motivation can explain a large proportion of individual differences in attainment but certain questions such as "Will there be a difference between the receptive and productive knowledge of the subjects who scored within the NS range?" remain unanswered and deserve further examination.

Chapter 9 presents Forsberg and Sandgren's empirical study on high-level proficiency in late L2 acquisition. Like the previous two studies in this part it uses the LLAMA to measure participants' language aptitude, and the participants are all late L2 (French) acquirers living in France. The study uses both collocations and grammaticality judgments as indicators of attainment. Furthermore, the study investigates personality dimensions that might account for differences in proficiency levels. The results show that collocational competence is correlated with language aptitude as measured by Section D (sound recognition) of the LLAMA. Subjects who exhibited strong cultural empathy and open-mindedness were the ones with superior collocational competence. Interestingly enough, the study found a correlation between LLAMA D scores and these same personality characteristics. The researchers are quick to point out that the results of their study are

not generalizable as the sample was very small and homogeneous, that is, it included well-educated, socially and professionally integrated female subjects only.

Part IV: "Implications for Educational Policy and Language Teaching"

Practitioners would expect this part to bring together theory and practice and to help decide on various language policies like the optimal time to start EFL programs, the use of immersion programs or bilingual education, the most effective methods of teaching EFL or ESL to younger or later starters in formal or informal settings, and so on. However, the two chapters in the last part leave the reader somewhat disappointed. Once again, we are presented with research, comprehensive as it may be, but no practical advice for those struggling in the field. Vatz, Tare, Jackson and Doughty actually state that "findings are often complex and difficult to interpret, thereby limiting applicability" (p. 291). The reader is presented with conflicting evidence from methodologically flawed research and has to decide for himself/herself what works best in his/her classroom. At the end of his chapter, Long expresses his hope that EFL programs start at the age-appropriate time (which for him is 0-6 years of age) and that it will have a beneficial effect not only on oral skills but on other language domains as well. But this is still somewhat vague and unsatisfactory as a conclusion as some of the chapters in the volume found that sensitive periods can vary for different language domains and different language aptitude, working memory, and other individual characteristics.

The volume *Sensitive Periods, Language Aptitude, and Ultimate L2 Attainment* presents research into second language acquisition and provides readers with a comprehensive review of the state of the art in this important area of applied linguistics. It examines critically different research findings in an attempt to come up with more reliable answers as to the optimal age of onset, language aptitude and its relation to ultimate attainment and other factors that may account for achieving native or near-native proficiency in a second or target language.

A major asset of the volume is its accessibility and coherence. The editors have done a wonderful job trying to keep to a consistent pattern of presentation and a very logical organization of the chapters within the different sections. The systematic and comprehensive review of research on the topics of interest is illuminating and helpful to both researchers and practitioners; it actually makes it possible to follow the main arguments even if the reader is not up-to-date on all the latest research in the field.

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