

Carmen Muñoz, ed. 2006: *Age and the Rate of Foreign Language Learning*. Clevedon, Buffalo, Toronto: Multilingual Matters Ltd. xi + 283 pp. ISBN 1-85359-891-7

Melinda Dooly
Universitat Autònoma de Barcelona
melindaann.dooly@uab.cat

Research on the influence of the age factor in first and second language learning has been a centre of debate for some time but research on the age factor in *foreign language learning* is relatively new. While second and foreign language learning are often categorised together, there are substantial differences in the acquisition of second and foreign languages. Not least of these is the fact that second language acquisition (SLA) is embedded within a larger context (the host environment) where the target language is widely used (Dörnyei 1990). On the other hand, foreign language (FL) acquisition usually occurs in decontextualised settings of the classroom with little possibility of regular interaction with the target language community.

Thus, within the framework of foreign language learning, this book examines data related to whether the age factor is relevant in foreign language acquisition – evidence based upon a longitudinal study carried out in Catalonia, Spain, and known as the Barcelona Age Factor (BAF) project. This project, financed in part by research grants from the Spanish Ministry of Education, aimed to study the effects of initial age of language instruction upon different aspects of language learning, all within a formal language teaching framework. The project was initiated in 1995 and data was collected between 1996 and 2002, thus allowing for longitudinal comparisons of the research data; diverse comparisons were made according to different areas of language learning. Three phases of comparison between early starters and late starters were used: the first phase after 200 hours of instruction, the second phase after 416 hours and the third after 726 hours.

The book begins with a very thorough overview of research into the critical period hypothesis (CPH), situating the research within a theoretical framework concerning age, rate and language attainment (although it must be borne in mind that CPH is mainly concerned with second language acquisition and not foreign language learning). *Age and the Rate of Foreign Language Learning* takes up questions previously posed by García Mayo and García Lecumberri (2003) in their book entitled *Age and the Acquisition of English as a Foreign Language*, in which the issue of CPH and other age related factors in FL learning are studied (for a review of this book, see Celaya 2003). In answer to the authors in García Mayo and García Lecumberri's collection, who pointed out the need for more longitudinal studies and for more reflection on how foreign languages are being introduced to different age groups, the various studies in *Age and the Rate of Foreign Language Learning* cover several years of data compilation and offer insights into the age factor in relation to diverse areas of foreign language teaching. Following the introduction, each chapter deals with a specific aspect of the research project which was studied independently (e.g. pronunciation, morphology, oral

fluency, etc.) together with the relationship between these areas and the age of initiation into language learning. Other chapters discuss aspects related to language learning but which are not specifically related to language form (e.g. learner strategies, interactional skills and motivation).

As the editor states, there is often an assumed connection between ease of language learning and age – the common assumption being the ‘younger the better’ and there has been considerable investigation into the ‘age factor’ in recent years by researchers from a wide range of disciplines. Barring a few areas such as ‘authentic accents’ or phonetic imitation, these studies seem to indicate that efficiency in formal language learning increases with maturation, that is to say older students appear to have an advantage over so-called young learners under the age of twelve (Thompson and Gaddes 2005; Singleton and Lengyel 1995). Another research carried out by Lasagabaster and Doiz (2003) also found that the maturational factor was decisive, with older students showing more complexity in linguistic performance and achieving higher overall scores in the tests administered by the researchers.

The evidence given in most of the different areas of study under the wider umbrella of the BAF project supports this hypothesis: within the context of foreign language learning (in this case the context is in Catalonia, Spain): older learners appear to be quicker in acquiring different language aspects, especially when dealing with explicit learning mechanisms. However, it should be pointed out that recent research has shown that carefully planned explicit teaching can actually be beneficial for young learners as well (see Goh and Taib 2006; Hall 2002), so arguably the debate is still open.

Notwithstanding the similarities in results and conclusions of each chapter, the book itself does not propose overall conclusions nor advocate any particular pedagogical position. The book is meant to give the reader a review of the project and its results, and then allow the reader to make his or her own conclusions. One pedagogical implication which might be drawn from the evidence presented here is that foreign language instruction needs to adapt to the different maturation phases of the students, for instance, fomenting implicit learning with younger students and gradually moving into more explicit learning techniques as the students get older (and become more familiar with explicit learning strategies prevalent in most education systems). The findings described in the book may be, in part, a reflection of the mode of language instruction frequently used in Catalonia (with older students mainly) wherein the emphasis is placed on formal grammatical analysis. This would imply that the older students are more skilled in dealing with some of the tests and assessment tasks used in the research approach.

Chapter One, written by Carmen Muñoz, outlines the BAF project in detail, beginning with, as stated earlier, a very precise theoretical background to the project, largely based on previous CPH research. In a nutshell, the idea behind CPH is that there is a biologically-determined critical period during which it is possible for a person to acquire a second (or third or fourth) language with relatively high attainment levels (if the learning process continues). Following this period, the mental mechanism for language learning changes, resulting in lower levels of language learning. Importantly, the author is careful to point out that the hypothesis of a critical period of language acquisition is largely based on research of first and second (immersion) language

acquisition and not foreign language learning. The chapter describes the BAF project, explaining how the data was collected, verified and analysed. The author provides precise explanations of the different tests which were given to the subject groups and how these were assessed – in particular the tests that were qualitative and how they were scored. Finally, Muñoz presents some general results of the BAF project which support the hypothesis that an age-related difference does indeed exist in formal language learning, clearly in favour of students with higher maturation levels.

Despite the precise descriptions of the way in which the tests were administered, more data concerning the type of language instruction would have been useful. For example, there is no discussion of whether the different study groups received comparable language instruction in questions of teacher-student ratio, materials and resources available in the classroom nor the teaching methodology the students were exposed to. There is a lack of information about the amount of learner interaction in the target language, the nature of tasks used (and thus which tasks the students are familiar with) etc. This type of information could have provided a more complete overview of the background to the study. This could also help avoid possible criticism concerning the focus of the research on only one variable – i.e. age – without taking into consideration other variables which inevitably influence the language learning process (Ellis 1992; Gardner 1993a, 1993b; O'Malley and Chamot 1990; Sternberg 1997; Wenden and Rubin 1987).

In the following chapter, Natalia Fullana considers the age factor in relation to the acquisition of foreign language phonology (target language – English). In order to test the learners' perception of English sounds, the learners were given a test of minimal pairs, while to test their phonological production the learners were asked to repeat words (imitation task) they heard from a tape (the voice belonged to a female native speaker of Standard British English). An SPSS (Statistical Package for the Social Sciences) was used for the analysis of significant differences in perception and production between the groups. Despite some differences between the groups in different tasks, the author concludes that the "starting age did not provide clear-cut evidence as to the perception of FL sounds in formal learning contexts by Spanish and Catalan learners of English" (57) and she calls for the need for further research.

There are many relevant pedagogical implications in the chapter – the importance of both quality and design of target language input in the foreign language classroom versus a focus on quantity. Along similar lines, in Chapter Three Joan Carles Mora focuses on oral fluency development, using data compiled from a story-telling task. As the author points out, pinpointing a definitive factor for evaluating the notion of fluency is extremely complex (65). In the end, the analysis of the oral productions of the subjects in the research is based on native-speaker descriptors or native-speaker judgements of non-native speakers' speech. Unfortunately, this seems to contradict an earlier position in the book that claims the research focuses on "optimal levels that are realistically attainable through school education, rather than on unattainable native-likeness" (vii). Still, the research into oral fluency provides a potent research background for further investigation into fluency in young learners – an area still largely unexplored.

Chapters Four, by Immaculada Miralpeix, and Five, by Carmen Muñoz, examine vocabulary acquisition and morphological acquisition, respectively. Given the difficulties encountered in quantifying early learners' vocabulary – often a problem for obtaining sufficient sample size – Miralpeix has found an innovative method of measuring vocabulary diversity using the D measure. This is a mathematical modelling approach which has the advantage of using the available data (even limited vocabulary production) so the formula is not a function of the number of words in the sample. Moreover it represents how Type-Token Ratio (TTR) varies over a range of token size for each speaker (McKee, Malvern and Richards 2000). As in other areas of the overall research, the results indicate that there is an advantage for late starters, in this case higher vocabulary production.

In her research into morphological acquisition, Carmen Muñoz first reviews in Chapter Five other studies concerning the question of acquisition of grammatical morphology in English as a second language, in particular the contributions made by Krashen (1985, 1996, 2003) concerning the 'natural sequence' of morpheme acquisition. Muñoz reviews the different ways in which this hypothesis has been critiqued, noting in particular that the BAF project can help further research in the relevancy of foreign language classroom context, formal instruction of grammatical input and accuracy order of morpheme use in relation to the age factor. Using data from semi-structured interviews and picture-elicited narratives, the author shows that although there is similar ordering of morpheme acquisition between different age groups, the rates of acquisition of these are different: the older groups are faster. Thirdly, the research indicates that the acquisition is more closely related to proficiency level than age level.

The pedagogical implications of this chapter are significant for teachers in that it highlights the role of input in language learning. "[A] certain amount of exposure will be needed to ensure accurate performance. (...) perhaps the relative frequency of various structures in the input becomes a salient factor for learners once they have enough of the second language to 'tune to the frequency', that is, beyond the very elementary level of the less proficient learners in this study" (122). These conclusions bring new light to an important debate concerning the role of input in foreign language learning by foregrounding questions about the importance of vocabulary and syntax in teaching materials as well as how they should be organised according to CPH. This is supported by Esther Alvarez's research concerning age and the nine levels of morphosyntactic development in Chapter Six.

Similarly, Chapter Seven, written by Maria Rosa Torras, Teresa Navés, Maria Luz Celaya, and Carmen Pérez-Vidal, looks at the development of writing competence of EFL learners in relation to the amount of instruction and age range. Looking at the subjects' writing – in particular, using a system of multivariate analysis of variance, the researchers look at the number and percentage of error-free sentences, complexity and other variants – the authors suggest that the starting age of language instruction and the amount of instruction have an effect on fluency and complexity, both lexical and grammatical. However these factors are not linked when it comes to accuracy. Significantly, the results seem to indicate that the amount of instruction makes more difference as regards complexity and fluency than does early initiation into language

learning – specifically around the age of 12, when complexity of writing begins to appear. As the authors point out, the two learning profiles which emerge – i.e. fluency and complexity – point towards the need for integrating different methodological approaches according to different age ranges, paying special attention to the needs of learners around the age of 12.

The final three chapters deal with issues pertinent to language learning processes such as interactional skills, learner strategies and motivation. These are all examined relative to the ‘age factor’. The research in Chapter Eight by Gisela Grañena indicates that the more proficient the learner, the higher the tendency to engage in explicit requests for help when faced with communicative gaps, while, interestingly, the proficiency level of learners is not necessarily relative to the development of learning strategies, as shown in the following chapter written by Elsa Tragant and Mia Victori. The research carried out by Tragant and Victori highlights the need to provide learners with methodological and psychological support, both of which are essential to help them develop their language learning skills and learning strategies. In the final chapter, also by Elsa Tragant, the results of the research into language learning and motivation indicate that there is some correlation between students’ motivation to learn English and age; older students displayed more motivation. However, the motivation was notably more extrinsic. This seems to beg the question whether the effect of having spent more time in the education system – known for its emphasis on extrinsic motivation – is reflected in the results seen here (Ames 1992; Hidi 2000).

An impressive amount of recent research on different areas of foreign language learning and their relationship to the age factor is compiled in this book, all of which make a timely contribution to the field of foreign language acquisition. A caveat may be in order: the reader should not necessarily extrapolate the research findings from this contextualised research project to an all-encompassing explanation of language learning processes. Inevitably, there are many variables that come into play when a child or adult learns a foreign language. Not only the learners’ attitudes, strategies and motivations, but also their attributes, needs, exposures, family environments and school environments are influential in the eventual language attainment. Bearing in mind that the research focuses only on one of these many factors – i.e. age – the book provides important input for language teachers and other language professionals about various maturational phases. All in all, the book presents an overview of extensive research into the issue of critical periods in language learning and its results provide food for thought for teachers interested in knowing more about the need for diverse types of language teaching approaches at different ages.

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