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11. RECENT RESEARCH ON AGE, SECOND LANGUAGE ACQUISITION, AND EARLY FOREIGN LANGUAGE LEARNING

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The aim of this chapter is to provide a critical overview of the issues and research conducted since the most recent state-of-the-art article published in the *Annual Review of Applied Linguistics* by David Singleton (2001). First, we summarize what research has said about the Critical Period Hypothesis (CPH) in cognitive science and neurobiology, then we review recent findings of age-related studies since 2000 focusing on what late beginners and adults can achieve, and how early and later beginners compare in bilingual programs. The second part of the presentation explores language policy and classroom implications of the CPH for foreign language teaching. As English has become the lingua franca, early programs have mushroomed all over the world. However, besides overwhelming enthusiasm, more recently critical voices can also be heard. On the one hand, early exposure is often seen as a key to success and a solution to all problems in language education; on the other hand, it may be perceived as a threat to first language development and identity. Finally, we explore areas for further research.

The Role of the Critical Period Hypothesis in Age-related Research

The role of the age factor and the existence of a critical period (CP) is a key research area in second language acquisition (SLA) research and, as Hernandez, Ping, and MacWhinney point out, "the idea of a biologically determined critical period plays a pivotal role not just in linguistic theory, but in cognitive science as a whole" (2005, p. 220). Cognitive approaches to and neurobiological explanations of SLA have recently emphasised a distinction between processes interacting in the development of language proficiency in line with the procedural/declarative dimension widely accepted in cognitive science (e. g., MacWhinney, 2005; Paradis, 2004; Ullman, 2001). Two systems co-exist: a rule-based analytic procedural system, and a formulaic, exemplar-based declarative system (Skehan, 1998). In the first one, storage and powerful generative rules operate together to compute well-formed sentences, whereas in the latter, the central role is played by a large memory system with some rules operating on chunks. It has been widely assumed that young

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children rely more on memory-based processes, whereas adults are more characterized by rule-based learning.

According to Paradis, the CPH "applies to implicit linguistic competence. The decline of procedural memory for language forces late second-language learners to rely on explicit learning, which results in the use of a cognitive system different from that which supports the native language" (2004, p. 59). The acquisition of implicit competence is affected by age in two ways: (1) biologically, the plasticity of the procedural memory for language gradually decreases after about age 5; (2) cognitively, reliance on conscious declarative memory increases both for learning in general and for learning a language from about age 7. CP can be "masked to some extent by compensatory mechanisms. To the extent that proficient L2 is subserved by declarative memory, like vocabulary, it is not susceptible to the CP," (Paradis, 2004, p. 60). This hypothesis is further supported by studies on exceptionally successful adult learners, as most of them seem to possess unusual memory capacity (Skehan, 1998, p. 233; Ioup, Boustagui, Tigi, & Moselle, 1994). Later learners compensate by relying more heavily on metalinguistic knowledge and pragmatics (Paradis, 2004).

The question whether a cut off point or a continuous decline characterizes learners in second language contexts is pivotal to the CPH debate. Hakuta, Bialystok and Wiley (2003) tested the CPH on data from the 1990 U.S. Census using self-assessments on age on arrival, length of exposure, and language development from 2.3 million immigrants with Chinese and Spanish L1. Instead of finding a markedly different line regressing on either side of the CP, their results showed large linear effects for level of education and for age on arrival. This lack of discontinuity indicates "that the degree of success in SLA steadily declines throughout the life span" (p. 37). Along similar lines, a huge dataset was analyzed by Chiswick, Lee, and Miller (2004) in a longitudinal survey of immigrants to Australia. These studies failed to find a pattern of discontinuous decline indicating a hallmark of a critical period. MacWhinney explains the absence of a sharp decline and age-related effects within his Unified Competition Model: older learners become increasingly reliant on connections between sound and orthography and they vary in the constructions they can control or that are missing or incorrectly transferred (2005, p. 64). They are also affected by restricted social contacts and declining cognitive abilities. In his view, none of these factors predict a sharp drop at a certain age in L2 learning abilities, but a gradual decline across the life span. An in-depth analysis of maturational constraints is put forth by Hyltenstam and Abrahamsson arguing that a "consensus model" can integrate the accumulated evidence on empirical facts and the relationships among them. In their view, maturation can account for the general linear decline in learning potentials with increasing age on arrival for learners in general, "whereas the variability between exceptionally successful and non-exceptional L2 learners of the same starting age is accounted for best by non-maturational factors" (2003, p. 574).

The CPH claims that natural language acquisition is available to young children, but it is limited in older adolescents and adults. Although the existence of

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age effects is widely accepted, many applied linguists disagree on whether age effects are consistent with a CP. Overviews on the age factor tend to rely on the same body of empirical evidence; however, some authors interpret studies in favor of the existence of the CPH (e. g., DeKeyser, 2003; DeKeyser & Larson-Hall, 2005; Hyltenstam & Abrahamsson, 2001, 2003) or against it (e. g., Bialystok, 2001; Birdsong, 2005; Marinova-Todd, Marshall, & Snow, 2000, 2001; MacWhinney, 2005; Moyer, 2004), whereas others maintain a more balanced view (e. g., Muñoz, in press; Scovel, 1988, 2000; Singleton, 1989, 2001; Singleton & Ryan, 2004).

Studies exploring the CPH look into data from two perspectives: the rate of acquisition and ultimate attainment. A widely accepted finding states that children are slower at SLA than adolescents or adults. However, they tend to achieve higher levels of proficiency in the long run. Both bilingual and early start foreign language (FL) programs (Foreign Language in the Elementary School, FLES in the U.S.) worldwide are based on the second assumption, but neglect the slower rate of language acquisition in young learners. As will be seen in our discussions concerning second language (SL) and FL education, this highly optimistic view may lead to unrealistic achievement targets and disillusionment over time.

Recent Research on Late Beginners: Can Adults Attain Native Proficiency?

A number of recent studies on the age factor have inquired into adults' ultimate attainment. Differences between early and late-start programs in immersion and foreign language contexts have also been explored. Research on ultimate attainment was called for by Long (1990) and a number of recent studies explore whether native proficiency is available to learners starting SLA after the CP. Over the last few years, this research question has inspired several empirical studies aiming to challenge the strong version of the CPH by identifying highly proficient adult learners of an L2 who started SLA after the CP and are indistinguishable from native speakers. These new studies go beyond the scope of traditional inquiries into the age factor as they triangulate their data and apply mixed research methodology: Although some studies use grammaticality judgment tests following Johnson and Newport's (1989) seminal study, they combine formal tests of competence with measures of performance. After testing post-puberty learners, authentic speech samples are used in tests for native speakers to pass a judgment on adult nonnative speakers. Other recent inquiries combine interview data and self-assessment with performance measures (Bongaerts, 1999; Bongaerts, van Summeren, Planken, & Schils, 1995, 1997; Marinova-Todd, 2003; Moyer, 2004; Nikolov, 2000a; Urponen, 2004). An important development in these studies relates to the variety of first and target languages: Successful post-puberty learners of L2 English, German, and Hungarian were involved speaking over 30 languages as L1, for example, Bulgarian, English, Farsi, Finnish, French, Hungarian, Russian, Slovak, and Ukrainian, among others (Marinova-Todd, 2003; Moyer, 2004; Nikolov, 2000a; Urponen, 2004). In this section five studies are discussed: In three projects the target language was English, whereas in two others participants learned Hungarian and German.

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The profiles of 30 post-puberty learners of English from 25 countries and speaking 18 languages were examined by Marinova-Todd (2003). A control group of 30 native speakers with matched academic backgrounds was also involved in her study. Data were collected with the help of a number of formal tests and a narrative task. Formal tasks included a previously validated grammaticality judgment test, sentence comprehension tests, a standardized vocabulary test, a discourse completion test, reading out a paragraph, and spontaneous speech (Frog story with visual prompts) to evaluate pronunciation and fluency. Nonnatives performed on a significantly lower level than the control group of native speakers on measures of pronunciation, vocabulary size, grammatical knowledge, and narrative skills, whereas no significant differences were found in semantic comprehension and on the discourse completion task. Two of the participants were judged to have indistinguishable accent from native speakers, and an additional six performed within the native range in spontaneous speech. Three main profiles emerged for highly proficient late learners: (1) Three women, married to native speakers of English, attained native level across all domains. (2) Two participants (also married to native speakers of English) were within native range on all measures, but in receptive vocabulary. (3) Three other women achieved similarly high scores on all tests, but they failed on both measures of pronunciation. None of them lived with native speakers of L2.

Urponen (2004) studied a large group of Finnish women (N = 104). The majority of participants had learned English as a foreign language (EFL) prior to moving to the U.S. or Canada and marrying native speakers of English. Data were collected by a grammaticality judgment test and interviews. On the test 38 percent of the participants were indistinguishable from the control group of native speakers. The best significant predictors of native proficiency included age when the study of EFL began, education in the host environment, and length of exposure, but not age on arrival. However, the group of youngest age on arrivals (12–15 years) outperformed later arrival groups. On the whole, participants' performance did not decline with their aging. The length of exposure in years did not predict ultimate attainment, as its relationship with grammaticality judgment test scores was ∩-shaped and the advantage gained from the study of EFL was noticeable even after decades of exposure to English in the host environment. The test scores declined as the participants' age on arrival and the age of starting EFL study increased. As for similarities and differences between the highest-scoring and lowest-scoring participants, the top achievers had studied more EFL before arrival in the U.S. and had more years of education both in Finland and in the host environment, read more, and focused more on both their accuracy and communication skills than participants with low scores.

Two parallel studies were conducted involving late starters of L2 English and Hungarian by Nikolov (2000a). Participants in the first study were 20 adults learning Hungarian; all of them started learning the target language as young adults in Hungary. The second study involved 13 Hungarians all of whom started English at the age of 15 in secondary school and some of them studied one or two semesters abroad as young adults. Both studies involved control groups of native speakers.

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Data were collected with the help of three instruments: (1) participants' background was explored with the help of structured interviews; (2) in a narrative task they were asked to describe an embarrassing moment in their life or a happy moment they remembered with pleasure; (3) they read out an authentic passage in the target language. Three groups of judges (13-year-old children and two groups of adults) were involved in deciding whether the speakers who had been audiotaped, were native or nonnative speakers of English and Hungarian respectively and why. From among the 20 learners of Hungarian, 2 were generally, and 4 were often mistaken for native speakers by the Hungarian judges. In the study involving 13 Hungarian speakers of English one was generally, and 4 others were often mistaken for native speakers by native judges. As a general strategy, judges used fluency, intonation, and content as clues. Children considered the lack of fluency, false starts, paraphrasing, and hesitation as the most important indicators of nonnative speakers, whereas adult judges focused more on content. For example, the expression of "Hungarian of '56" (ötvenhatos magyar), a description of a gay bar experience, and the use of "ruptured ulcer" were judged as idiomatic and used only by native speakers. Similarly to these findings, lack of self-confidence was one of the indicators of a non-native speaker in the study conducted by Marinova-Todd (2003).

Moyer (2004) studied not only the language proficiency of 25 successful well-educated immigrants to Germany from Britain, France, Poland, Russia, Slovakia, Turkey, and the U.S., but she also explored how their ultimate attainment was influenced by their opportunities and intentions, thus integrating quantitative and qualitative data. Three sets of instruments were used for data collection: (1) a questionnaire surveying biological-experiential, social-psychological, instructional-cognitive, and experiential-social experiences; (2) controlled and semi-controlled production tasks (reading out words, a paragraph, spontaneous speech on an important or embarrassing situation, recital of short sayings or proverbs); and (3) semi-structured interviews. Speech samples were judged by three native speakers on a 1 to 6 scale. Performances on the reading tasks turned out to be the least reliable indicator of proficiency in German (similarly to other studies: e.g., Marinova-Todd, 2003; Nikolov, 2000a), whereas natural speech production was found to be the most reliable (in line with results in other studies using similar methodology: e.g., Bongerts et al., 1995, 1997; Marinova-Todd, 2003; Moyer, 2004; Nikolov, 2000a). Raters were given space to write comments; the majority of these related to phonological criteria, but many referred to word choice. According to Moyer's findings, the directness and independence of age effects were weaker than suggested by earlier studies. Age on arrival and length of residence exerted similar influence on ultimate attainment, whereas psychological factors (personal interest in improving fluency and satisfaction with attainment) accounted for 74 percent of the variance in attainment, offering a stronger prediction than that offered by a combination of age on arrival and length of residence. Based on the findings, quality of access to L2 and experience with L2 are operationalized along four criteria: (1) duration (length of residence, instruction, contact); (2) quality of experience (formal and informal contexts, types of feedback and instruction, motivation); (3) consistency over time; and (4) intensity or extent of orientations (motivation, intention to reside, identity, sense of self in the L2 community and in the L2) (Moyer, 2004, p. 144).

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These recent studies on successful adults' ultimate attainment go beyond the traditional CPH research methodology and debate: They tap into a number of variables, involve a range of first languages, apply tests of performance, and take into consideration different "opportunities afforded to individual learners" (Moyer, 2004, p. 147) and the extent to which they wish to be taken for native speakers. An important finding relates to the status and perception of languages, because learners' first language and culture and the L2 and culture also exert an influence on ultimate attainment: in Moyer's (2004) study an American participant learning German, and in Nikolov's (2000a) research three Russian wives and a British woman learning Hungarian did not want to pass for L2 native speakers, for they considered their accent to be an integral part of their identities and their culture of higher prestige. These findings are in line with what Moyer (1999, p. 98) found in her previous study in which few successful advanced learners of German wanted to sound native or even to improve their phonology. However, a Ukrainian speaker of German (Moyer, 2004), and a young Russian entrepreneur and a Bulgarian actress speaking Hungarian (Nikolov, 2000a) did not wish to be identified by their accent and worked on their language development consciously.

These case studies document that all the post-puberty learners who were frequently mistaken for native speakers definitely strived for unaccented proficiency, similarly to participants in previous studies (Bongaerts et al., 1997; Ioup et al., 1994). These successful language learners shared intrinsic motivation in the target language, were proud and conscious of their achievement and worked on their language proficiency actively through finding opportunities for communicating with L2 speakers and reading and listening extensively. For many of them, the target language was either part of their profession or they had very strong integrative motivation to become bona fide residents of L2 society. Intensive phonetic training in British English was hypothesised to contribute significantly to Dutch adults' ultimate attainment (Bongaerts et al., 1997, p. 463), whereas this was not typical in the studies overviewed earlier, as conscious training was available only to a few participants. Intensity of language use is an important factor in native-like proficiency: In studies on successful adult learners complete immersion in the host environment (in many cases in the form of marriage to a native speaker) for an extended period of time has been found to be conducive to native proficiency. Although accent is seen by some experts as the least important aspect of L2 proficiency and speakers who fail to achieve native-like accent lose nothing important (Cook, 1995), others, for example, Bongaerts et al. (1995) found that native speakers may avoid further interactions with speakers of heavy accents and argue for the importance of accentless proficiency.

The conclusion based on these recent studies is that native ultimate attainment is available to a number of adults who started learning the target language after puberty, therefore, the strong version of the CPH cannot be maintained any longer. In the next section, we focus on young learners and research into pedagogical programs involving them. Before doing so, however, a final note is necessary. Early foreign language learning experience was found to have a significant impact on outcomes in the case of successful Finnish learners (Urponen,

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2004). Participants who began their EFL study before age 16 and spoke two or more languages obtained higher nativeness scores than the participants who began later. Whether they were initially more able, or their earlier language learning experience of one or more FLs contributed to their better ultimate attainment would need further research.

Pedagogical Programs Based on "the Younger the Better" Assumption: Second versus Foreign Language Contexts

In bilingual programs in second language contexts, learners are immersed in the target language so that they can join their peers in mainstream education after a while and become balanced bilinguals. However, political agendas may clash with this aim and research findings, as is the case presently in Californian public schools where bilingualism is not seen as something valuable, but young children are submerged into mainstream English classes. In comparison to bilingual education, foreign language programs tend to set less ambitious but more complex goals. They intend to expose young learners to an L2 not only for linguistic purposes, but to allow them to develop favorable attitudes towards languages and language learning, and to help them become proficient users of foreign languages as adults. For example, a recent European language policy document states that it is a priority to ensure effective language learning in the kindergarten and primary school, as in such programs "attitudes towards other languages and cultures are formed, and the foundations for later language learning are laid" (Commission of the European Communities, 2003, p. 7). Besides socioaffective and linguistic gains, research on early bilinguals (Bialystok, 2001, 2005) emphasizes that bilingualism is associated with more effective controlled processing in children, as the constant management of two competing languages enhances executive functions, and a higher level of metalinguistic awareness (Cook, 1992; 1995); recently, similar results have also been found for bilingual adults (Bialystok, Craik, Klein, & Viswanathan, 2004).

In order to set realistic goals for early learners, it is essential to consider what level learners in bilingual education achieve, and how long it takes them to develop native-like proficiency in a L2. The research evidence shows that five to seven years are needed, depending on the educational programs, to achieve grade level norms in academic subjects taught in English (Wong Fillmore, 1998) and a recent longitudinal study found that young children had strong accents after four years of enrollment in English-medium schools (Flege, Birdsong, Bialystok, Mack, Sung, & Tsukada, 2005) indicating that native accent is not automatically available.

For a comparison of SL and FL programs, the ratio of the curriculum available to learners in L1 and L2 is a key factor. According to Cummins (n. d.), the results of three decades of research focused on three major variants of French immersion program involving early immersion starting in kindergarten or grade 1; middle immersion starting in grades 4 or 5; and late immersion starting in grade 7. All are characterized by at least 50 percent instruction through French in the early stages; between grades 5 and 9 the ratio declines to about 40 percent. Students have been consistently documented to gain fluency and literacy in French at no cost to

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their L1 academic skills. By grade 5 there are no differences in English test performance between immersion students and English only comparison groups, whereas by grade 6 their French is close to native-like in listening and reading comprehension, but their spoken and written L2 is less good.

In contrast, early FL programs devote very limited amounts of curricular time to FLs: between less than an hour a week to short daily sessions. Other important differences relate to the quality and amount of input and interaction available to learners in and outside the classroom, and most importantly, the quality of teaching. While in immersion programs teachers are proficient users of both languages and the curriculum requires a primary focus on meaning, in FL contexts teachers' proficiency and age-appropriate methodology vary to a great extent. A further difference concerns achievement targets: FL learners are not expected to achieve native L2 level in school; in fact achievement targets tend to be modest and different levels may be required in the four skills. Finally, in FL contexts L2 is considered—and often assessed—as a subject in the curriculum in its own right and learners do not necessarily associate it with something more useful than math or science. A recent trend aims to integrate the immersion model through content-based instruction (the new buzz term is "content and language integrated learning," CLIL), but obviously, the quality of learning cannot be guaranteed by content teaching.

Early and Later Beginners in Immersion Programs

The most widely cited recent comparative studies on early and later immersion were conducted in Canada in two phases (Harley & Hart, 1997, 2002). The first study investigated the relationship between aptitude and SLA among learners whose intensive L2 exposure began at different ages hypothesizing that in late immersion there would be a positive relationship between language performance and an analytical dimension of language aptitude, while in early immersion beginning in first grade a positive relationship would be found between L2 outcomes and memory ability. They also hypothesised that early immersion students' aptitude would increase as a result of their early exposure to L2. Altogether 65 eleventh graders were involved in the study: 36 early immersion children received 50 percent of their daily instruction in French, while 29 late immersion students began their French studies along the same pattern in 7th grade. Prior to their late immersion, these children had attended a "regular core French program of 40 minutes a day from grade 4" (Harley & Hart, 1997, p. 385). Thus, they also started French early and participated in what would be considered intensive language learning in FL terms, but their early experience is not considered, as the authors focus on "intensive exposure" irrespective of earlier language study, though students must have developed in two years. In addition, in the discussion of the results the authors admit that the late immersion group was "a more select group of higher aptitude learners in the first place" (1997, p. 395); therefore, finding no increase in aptitude for the early immersion group may in fact indicate an increase. Also, it is possible that the late immersion group relied more on their analytic abilities because they had better access to them. As for the language tests (for a critical analysis of the test design see Nikolov, 2002a, pp. 36–38), instruments included a vocabulary list, a listening

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comprehension test, a cloze test, and a writing task, but the latter were based on one another. Writings were assessed for task fulfilment and accuracy, but not for fluency or vocabulary. The oral test consisted of sentence repetition and picture description (Harley & Hart, 1997, p. 388). The authors found that "early immersion students' L2 outcomes were much more likely to be associated with a memory measure than with a measure of analytical language ability, whereas the opposite was the case for the late immersion students, for whom analytical language ability was the only significant predictor of L2 proficiency" (Harley & Hart, 1997, p. 395).

The follow up study aimed to explore the relationship between age, aptitude, and other variables on a bilingual exchange (Harley & Hart, 2002). Participants were 26 10th and 11th graders staying with a French-speaking family in Quebec for three months. Students had been in core French programs since grade 4 or earlier. The same measuring instruments were applied and a questionnaire was also designed to collect data on students' experiences in the host environment. The findings indicate that analytical language ability did influence learning success but less consistently than among late immersion students in the previous study, and memory for text was less relevant than for early immersion students. It is important to stress that in both studies the authors assume that age of initial intensive exposure is qualitatively different from age of initial exposure. However, it is unclear why this should be the case and what the criteria for such a distinction should be—and this question leads us into the applicability of these findings to FLL contexts. A further question may be how early exposure to an L2 will influence learners' L2 learning orientations, and how it may impact on learning L3 or further languages (see positive relationship discussed in Urponen, 2004).

What is known from research on the CP and immersion students has important implications for young learners of FLs: (1) young children are slow at developing in the target language, therefore they need a longer period to achieve levels adolescents and adults can achieve faster; (2) they benefit from meaning-focused activities; (3) they rely very little on explicit rules, declarative knowledge, and inductive/deductive reasoning skills; (4) but rely on their memory and procedural knowledge; (5) because young learners tend to surpass adults in the host environment in the long run, classroom instruction providing children with opportunities similar to "natural" SLA are appropriate in FL contexts; (6) early language learning experiences may enhance children's cognitive control; (7) there is no reason to assume that the L2 will have a negative impact on L1 if it is also developed in parallel; (8) both early and late immersion programs contribute significantly to learners' development. Thus, it is impossible to decide whether early or later immersion program models should be favored. (9) It is possible that an early start contributes to young learners' attitudes and motivation, which later ensure good proficiency; in other words, most probably it is not the actual early language gain that matters in the long run. SLA is a life-long enterprise; both proficiency and willingness to maintain and develop it further are crucial. Finally (10) teachers need to be proficient users of both languages and able to apply age-appropriate methodology.

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Early Foreign Language Programs: Issues

The last 15 years have seen an enormous worldwide increase in early FL instruction. The publication of state-of-the-art reviews (e.g., Johnstone, 2002; Kubanek-German, 1998; Nikolov, 2002a; Rixon, 1992) and studies focusing on international comparisons of early FL programs (Nikolov & Curtain, 2000) as well as conferences, special interest groups, workshops and special examinations designed for young learners all indicate that despite the "questionable impact" (DeKeyser & Larson-Hall, 2005, p. 101) of CPH-related discussions, there is an enormous interest—and a huge market. In this section we discuss the most important issues emerging from recent sources (e.g., Blondin, Candelier, Edelenbos, Johnstone, Kubanek-German & Taeschner, 1998; Edelenbos & Johnstone, 1996; Moon & Nikolov, 2000) exploring early language instruction practices all over the world. On the whole, it can be stated that although the educational contexts and conditions of early programs vary to a great extent and despite the worldwide spread of teaching foreign languages, most importantly English, to young learners, very little research has been published.

Most countries accept the folk wisdom and findings from L2 contexts without considering questions like the amount and quality of exposure to L2, teachers' competences and motivation, classroom methodology, and continuity of programs. The trend documented in recent European statistics is typical of contexts where parents' instrumental motivation for their children to study English as a global language is strong indeed. In these contexts compulsory foreign language education tends not only to start at an increasingly early stage but also to last longer (Edenlebos & Johnstone, 1996, *Key data on teaching languages at school in Europe*, 2005). In addition to these trends, because English is overwhelmingly favored, in Europe the study of a second FL is added to language policy recommendations (*Common European Framework of Reference*, 2001).

Earlier start programs are often introduced through pilot projects aiming to prepare ground for the integration of modern languages on a larger scale. For example, 10 European countries reported a pre-primary or primary pilot project in the 2002/2003 academic year (*Key data on teaching languages at school in Europe*, 2005), whereas many other countries simply launch programs without official piloting on parental demand. When, however, educational policy fails to keep priorities on the agenda and project money runs out, as has been the case, for example, in Austria (Jantscher & Landsiedler, 2000), Croatia (Mihaljević Djigunović & Vilke, 2000), Italy (Gattullo, 2000), and Scotland (Blondin, et al., 1998), FL teaching becomes part of routine and the initial enthusiasm and professional quality declines. In most empirical studies, experimental programs with enthusiastic teachers produce good results (e.g., Moon & Nikolov, 2000); but when programs become more widely spread, there is less research and often funding is also withdrawn. No studies are available on why, if any, programs fail. Most studies apply cross-sectional design (but see recent exceptions); testing techniques (often inappropriate for the age group) vary, and classroom observations are hardly ever used (Nikolov, 2002a).

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Target Languages: Modern Foreign Languages in General versus English

Early programs tend to be run in a number of languages but the proportion of English has been increasing extremely dynamically worldwide. Presently, in the overwhelming majority of countries, English is widely taught, despite some heated debates, for example, in Switzerland (Fretz, 2000) and Belgium (Housen, 2000), whereas in Australia, Croatia, Ireland, or the United States (Curtain & Dahlberg, 2004; Harris & Conway, 2002; McKay, 2000; Mihaljevic Djigunovic & Vilke, 2000) a range of languages has been offered. In some countries the L1 of immigrant children is also offered: for example, Turkish and Italian in many German schools (Kubanek-German, 2000). The most important recent trend, however, is to offer English to more, or all, and younger learners: for example, according to ministry statistics in Japan, more than 90 percent of public elementary schools offered English language activities in 2004 (Nakamura, 2005) as a result of parental pressure. This overall enthusiasm towards early instruction in English is creating needs in teacher education and materials; thus, teaching EFL to young learners has developed into a huge business in the private sector (for example, in China, where the majority of children take on additional EFL classes at cram schools).

Access to early start programs varies from context to context. In many European countries where public education has provided all young learners with opportunities to study EFL and transfer to the secondary level is also smooth (for example, in the Scandinavian countries or in the Netherlands), an early start is the norm, the overwhelming majority of the population achieve useful levels of proficiency, and Council of Europe language policy documents recommend two foreign languages to allow students to study another language besides English. However, in countries where provision of early English has been increasingly seen as a key to success in the long run, but access to it is limited, starting early has become entangled with equity issues. Better education means earlier access to good quality EFL instruction for the advantaged. In Hungary, for example, a significant difference has been found between nationally representative samples of English and German children's cognitive abilities: Learners of English tend to be more able (Csapó & Nikolov, in preparation). The best predictor of achievements on proficiency tests in these two languages is learners' socioeconomic status reflected by parents' level of education (Józsa & Nikolov, 2003). In Croatia, where a wider choice of modern languages was welcome in lower primary classes in the mid 1990s, parents whose children were placed in German classes in 2003 organized protests upon the mandatory introduction of a FL in grade 1 (age 7); the parents wanted these youngsters to study English.

An early start of English as a global language may also be seen as a threat in other contexts: for example, recently in the Arab world and the Asia-Pacific region xenophobic fears have emerged. As several presenters in sections on World Englishes claimed at the 39th TESOL Convention (2005), English is increasingly seen as a vehicle of globalization, and its spread may not only corrupt young children's minds, but it also threatens their L1 literacy and identity.

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Individual Differences

Young children are assumed to be more similar to one another than adolescents and adults; they are expected to succeed without difficulty, and fewer individual differences are expected among them. Because of limited access, however, some sort of selection and streaming is often implemented, although typically almost nothing is said about the criteria and the process. Criteria often concern learners' school achievements, aptitude, and socioeconomic status. Research in European countries provides insights into these areas. In contexts where not all learners are placed in early FL programs, placement is arranged mostly on parental demand. Research has revealed that in Hungary, for example, 5 percent of the students, mostly Roma, are never given an opportunity to learn any FL (Nikolov, 2000b) formally because of learning disabilities, but the reason is that village schools do not offer early L2 instruction and when pupils transfer to an upper grade in a bigger school, they lag behind their peers. In contrast, in Germany a number of pupils with learning difficulties get early foreign language instruction geared towards their needs (Kubanek-German, 2000).

Learners' socioeconomic status and parental support are rarely addressed explicitly, although in contexts where the private sector offers early programs, socioeconomically advantaged children's parents are more able to afford them. The aptitude of young learners is a generally underresearched area. Children are expected to develop basic interpersonal communication skills easily, but cognitive academic language proficiency is also necessary in the long run to be able to use L2 literacy skills.

Gate keeping and streaming are sometimes based on learners' abilities along the claim that early FL instruction is not for everyone, but for the more able only. For example, in a Slovakian project (Farkasová & Biskupicová, 2000) involving over 1,700 first graders (age 6) learning one of three FLs (English, German, French), pupils were selected on the basis of tests of school readiness, verbal, and nonverbal abilities. Successful learners achieved significantly higher scores on the nonverbal intelligence test than unsuccessful learners, whereas the latter had more neurotic tendencies and made perception mistakes. As for their family background, parents of successful learners were better educated, used foreign languages more frequently, and more actively. Also, they offered their child more active support (e.g., practiced and revised material taught in school) than parents of unsuccessful children. The study concluded that because of differences in cognitive abilities and emotional balance, not every child is ready to start a FL at age 6.

Two recent studies examined how young Hungarian learners' abilities contribute to their achievements in EFL at the age of 12. In a context where the tradition of streaming is strong and EFL tends to be provided for the more able learners, in a study involving over 400 learners from 10 schools, 22 percent of the variation in English performances was explained by their aptitude (Kiss & Nikolov, 2005). In a large-scale study on nationally representative samples of over 10,000 learners of English (age 12) learners' scores on an inductive reasoning test predicted

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14 percent of the variance in their performances on reading tasks (Csapó & Nikolov, 2002).

Attitudes and motivation have also been explored in some contexts, because one of the arguments for an early start is to develop children's positive attitudes. It is widely assumed that early foreign language instruction will, as a rule, contribute to children's favorable attitudes. There are counter examples from recent history, for example from Eastern European countries where, although Russian teaching started early (at age 9), negative attitudes also emerged at an early age. As for more recent examples, a lack of motivation has been observed in the case of Austrian pupils after the compulsory introduction of early English instruction (Jantscher & Landsiedler, 2000). Several other studies combined enquiries into linguistic and psycholinguistic outcomes. A longitudinal Croatian study (Mihaljević Djigunović, 1993; 1995) explored learners' attitudes and motivation in various languages on a large sample over an extended period of time. The longitudinal results showed that young learners' initial motivation was closely dependent on their attachment to the teacher, while as they progressed in the FL both instrumental motives and liking the FL as such became important. The main finding, however, is that FL learning motivation was maintained and often enhanced during the eight-year period. This and another longitudinal study that extended over 18 years exploring the development of Hungarian students' attitudes and motivation (Nikolov, 1999) have shown that the most crucial motivational factors function on the classroom level: The teacher's role is extremely important, together with intrinsically motivating and cognitively challenging tasks tuned to learners' age and level.

A large-scale Irish project (Harris & Conway, 2002) involving one of four FLs (Italian, Spanish, German and French) from grades 5 and 6 pointed out the importance of both interest and ability for listening comprehension, and stressed adverse effects of difficulty with either the FL or any of the main school subjects on overall linguistic and communicative competence. Finally, there is not enough empirical research on how children interact with their peers and their teacher while doing tasks appropriate for their age. Good examples of how teachers and peers can scaffold pupils' learning are hard to find (for exceptions see e.g., Gattullo, 2000; Nikolov, 2000b).

Early versus Later Start

Two carefully designed and documented longitudinal projects have been implemented in Spain in recent years. Both projects explore early and later introduction of EFL into the school curriculum of bilingual (Catalan-Spanish; Basque-Spanish) learners. The Barcelona Age Factor (BAF) Project (Muñoz, in press) started in 1995 and involved 2,068 participants. It aimed to find out whether age has an effect on the rate of FLL, whether older learners surpass younger learners the way they do in natural SL context, and how age affects different language areas during FLL. Data were collected after 200, 416, and finally after 726 hours of instruction. Measures were tests of speaking, listening, writing, and reading in EFL, two tests measuring comprehension in L1 (Spanish and Catalan) and a questionnaire.

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Some tests were discrete point, other were integrative skills tests. Several of the measures (e.g., oral interview and role-play) were meaning-focused tests. The results of the project indicate that earliest beginners showed the highest rate of learning in the last third of the followed period (that is, between 416 and 716 hours of instruction), the middle young beginners (age 11) progressed fastest in the second third (between 200 and 416 hours of instruction), whereas adolescent beginners showed fastest initial rate of learning in the first third of the period (after 200 hours). For those starting at ages 8 and 11 the rate of learning became salient at the age of 12. In terms of younger beginners' surpassing older beginners, Muñoz concludes that, in the FLL context, younger children need a longer time than younger beginners in the SL context. After nine years of learning EFL, the difference in scores on tests implying implicit learning (e.g., listening comprehension) got smaller. Thanks to the fact that the BAF Project followed language learning in a FL context for a longer period of time than the studies focusing on natural SLA, the insights have lead Muñoz to a different prediction about the long-term age effects. She, thus, predicts that differences between younger and older beginners will disappear once, given the same time and exposure, they reach the same state of cognitive development.

Basque-Spanish speaking EFL learners were involved in the other project following beginners from the ages of 4, 8, and 11. The research design was parallel with the other longitudinal study (Muñoz, in press) and the outcomes document similar findings: on a number of performance measures, including oral and written perception and production tasks, older beginners achieved significantly higher scores than younger learners (Cenoz, 2003; García Lecumberri & Gallardo, 2003; García Mayo, 2003; Langabaster & Doiz, 2003; Muñoz, 2003). Two points need to be mentioned: (1) In these groups the same tests were applied for the sake of comparability (Muñoz, 2003, p. 167), thus, it is not known how learners would have performed on tests more tuned to their levels. (2) Assessments of the quality of teaching, including teachers' proficiency, pronunciation, and classroom methodology were not included in any form. As García Lecumberri, and Gallardo word the dilemma, all teachers were nonnative speakers of English, but "for obvious reasons, this can be a sensitive issue, which we have not been able to address yet" (2003, p. 129).

The eight-year Croatian project of early FLL (Mihaljević Djigunović & Vilke, 2000) included more than 1,000 first graders (age 6–7) learning four foreign languages (English, French, German, and Italian). The aim was to find the optimal starting age at which the FL should be introduced in the primary school curriculum. In pursuing this aim, the project focused on characteristics and abilities of first graders, analyzed teaching quality (with a specific focus on teacher characteristics) and selection of language materials (in terms of content and linguistic structure), and followed the participants' FL development over eight years. Some investigations were conducted with all the four languages, some only with EFL. Control groups were also involved (beginners starting in year 4, at age 10–11, the official start at the time). The main characteristic of the Croatian project was that the intensity of exposure to the FL, the language content and activities were such that they approximated conditions available in natural SL contexts. Oral interviews,

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questionnaires, classroom observations, and story-telling recordings as well as proficiency tests were used to collect data. Studies carried out during the eight years showed that young learners were developing fast at the phonological level (Kovačević, 1993); they mastered prototypical language elements faster than other parts of language (Vilke, 1995), and along with their linguistic development a number of learning and communication strategies also emerged (Kovačević, 1998; Mihaljević Djigunović, 2001). In a final evaluation at the end of year 8, results of project learners were compared with those of the controls. Project students were significantly better at pronunciation, orthography, vocabulary and a C-test, but only slightly better at reading. Project learners were not much better at tests that tapped explicit knowledge of the grammatical system (e.g., gap-filling of sentences without a wider context) but outperformed the controls on the C-test, which tapped implicit knowledge of English. As for their oral skills, results of an unstructured interview with EFL learners showed, overall, a high level of communicative competence. However, significant variability could be observed among the four EFL project groups. Mihaljević Djigunović and Vilke (2000) attribute this to the inadequate teaching EFL learners were exposed to when their appropriately trained teachers left the project and were replaced by new teachers. The longitudinal study showed that in the Croatian socioeducational context, 6– to 7–year-old beginners outperformed later (10-year-old) beginners if some basic conditions were met. These refer exclusively to the quality of exposure, which in the FL context is dependent on the quality of teaching.

A recent international project looking into levels of achievement of year 8 EFL learners in Croatia and Hungary (Nikolov, Mihaljević Djigunović & Ottó, in preparation) showed that earlier starters were significantly better at all measures (meaning-focused tests on the four language skills, and on pragmatics) than later starters. The same was found in a large-scale Croatian national project that followed a similar design but included also year 12 EFL learners: earlier starters outperformed later starters on all measures (Mihaljević Djigunović, in preparation). The relationship between an earlier start and outcomes, however, is modest in both contexts. As for the relationship between starting English and German, a nationally representative study of Hungarian learners found that in the case of 12-year-olds, the time of start explained only 3 percent of variance for both languages, whereas the best predictors were learners' socioeconomic status and number of weekly classes (explaining 25 and 18; 13 and 10 percent of variance, respectively) (Józsa & Nikolov, 2005).

Continuity and Transfer

Educational history repeats itself, as a lack of continuity is often typical in early start FL programs similarly to the "French in the Primary" report in Britain (Burstall, Jamieson, Cohen & Hargreaves, 1974): Transfer from early programs is problematic in many countries from Poland to the United States, and from Hong Kong to Canada (Nikolov & Curtain, 2000), because continuity is not always ensured. Continuity is lacking in different areas: Learners cannot continue the FL they learned in primary years, classroom methodology is form-focused, and

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programs fail to integrate what children already know and are good at. Hardly any research has looked into how secondary schools build on learners' level of L2. In a qualitative study on 94 unsuccessful adult FL learners' school experiences, all of whom had studied a FL for 5 to 9 years in the primary school, 59 were placed in beginners' groups in secondary schools in Hungary and in the long run they failed to benefit from early exposure (Nikolov, 2001).

A lack of continuity of support and ownership is also typical. Case studies on a number of countries illustrate (Nikolov & Curtain, 2000) that ministries sponsor programs for a while, but when the novelty element, specialist teachers and special in-service training are gone, support caters only for teaching but no further research or in-service education. For example, in Italy in-service teacher training supported the introduction of early language programs but enthusiasm declined with the spread of practice (Gattullo & Pallotti, 2000; Hill, 2000). In Croatia, a large-scale national project including the teaching of a variety of languages and research came to a sudden end as the ministry withdrew support (Mihaljevic Djigunovic & Vilke, 2000). When the government, in fact, introduced FLL as compulsory part of the curriculum from grade 1 in 2003, it ignored the findings of the eight-year project and failed to secure any of the provisions found to be essential for successful FLL. In Scotland, without specialist teachers the initiative became very different from the original project (Blondin et al., 1998).

However, expectations are often unrealistically high or simply inappropriate. Aims are mostly conceptualized in L2 achievement, and checked on tests, which are not always in harmony with teaching methods. A positive example would be Sweden where standardized tests on English are administered in year 5 to all students (Sundin, 2000). Other countries look for innovative techniques, like the language portfolio (Hasselgreen, 2005), but whether it can solve any of these problems, as hoped in Austria (Jantscher & Landsiedler, 2000), remains to be seen. Testing outcomes is problematic in other ways as well. There has been research on teaching techniques for young learners, but what task types are appropriate and efficient for testing children is an under-researched area. Because the programs aim to develop listening and speaking, these are the appropriate skills to be assessed but doing so costs a lot. Also, who should administer tests, how, and when are delicate issues. In some countries, unwillingness to introduce evaluation and testing (e.g., Germany) has been widespread, while in other countries assessment is part of the general curriculum, so L2 achievement is also graded (e.g., Hungary).

Teachers of Young Learners and the Quality of the Language Learning Experience

Teachers and teacher education emerge as the most important stakeholders in early foreign language programs. Despite the fact that teacher education is obviously the cornerstone of early FL education, little research has been conducted into this area. Discussions tend to explore the differences between specialized classroom teachers versus specialist teachers, for example in Italy, the United Kingdom, Austria, (Moon & Nikolov, 2000; Nikolov & Curtain, 2000), whereas in other countries the lack of any qualification is typical. For example, in the Czech

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Republic, 76 percent of primary teachers were unqualified in 1996/97 (Faklova, 2000), whereas in Hungary, over sixty percent of them are retrained Russian teachers (Nikolov, 2000b). In Poland, there are simply not enough teachers (Komorowska, 2000), whereas in Belgium native L2 teachers are not allowed to teach their L1 (Housen, 2000).

Two general patterns involve classroom teachers with low proficiency but age-appropriate methodology and familiarity with the curriculum, and the specialist teacher, who is more proficient, tends to focus on the target language and often applies inappropriate and demotivating methodology. The relatively low prestige of early L2 teachers in public schools is often in contrast with their higher prestige in the private sector (Nikolov & Curtain, 2000). Teachers' beliefs and motivation are also hardly ever researched. In certain contexts teachers do not share the enthusiasm of parents and other stakeholders. For example, in Hungarian lower primary classrooms, teachers were observed and interviewed (Lugossy, 2006; Nikolov, 2002b). It turned out that very few found satisfaction in teaching young learners, they wished they could stream them and teach the more able only, or teach older learners; they perceived games and storytelling as a waste of time, and looked forward to "proper teaching" in later years.

In-service training programs prepare teachers for the job, but there is not enough research on what teachers actually do in the classrooms before, during and after methodology treatment. Mostly cross-sectional inquiries are applied (e.g., Gattullo, 2000; Nikolov, 2002b), but no longitudinal studies are available. As for what teachers do, a cross-sectional nationwide study in Hungary inquired into how frequent and liked classroom activities were with 12-year-olds in English and German classes (Nikolov, 2003). The most frequent tasks—and the least popular ones—in both languages included translation, reading aloud, grammar exercises, and tests. The least frequent tasks were listening to tapes, viewing videos, role-play, and playful activities, and these were also the most popular.

It is surprising that there is no study on how teachers' proficiency, especially pronunciation and fluency, contributes to young learners' language development. This is all the more shocking in the light of the arguments discussed in relation to the CPH. One might wonder how children's pronunciation is influenced by the teachers' nonnative oral skills. Even the most carefully designed longitudinal projects avoid focusing on the teacher and discuss findings without an analysis of the quality of teaching (e.g., García Lecumberri & Gallardo, 2003; Muñoz, in press).

Conclusions and Implications for Future Research

The first part of this chapter aimed to overview recent research into the age factor and the CPH. As a point of departure we discussed theoretical perspectives and overviewed studies inquiring into what late beginner adults can achieve. The second part of the chapter discussed language policy and classroom implications of the CPH for second and foreign language contexts. The arguments for early instruction can be summarized around the following points: (1) studies in child and adult SLA research

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indicate that the length of exposure may influence SLA in a favorable way, though longer exposure to L2 does not guarantee better outcomes automatically; (2) as the general curriculum for learners expands with age, one of the areas of knowledge that could be acquired early is an L2; (3) in a globalized world, early L2 learning may contribute to understanding and appreciating different cultures, values, and speakers of other languages; (4) the ability to use two or more languages may enhance cognitive development and metalinguistic awareness, and thus, may influence the L1 favorably through raising awareness and may encourage the further language learning. However, for early FL programs to be useful, certain conditions must be met: (1) learners need to have positive attitudes towards the L2, its speakers and language learning; (2) the content and methodology of the programs, transfer, and frequency need to be appropriate; (3) proficient teachers are needed who not only speak both the L1 and L2, but can also apply age-appropriate methodology successfully.

Finally, further research is necessary in a number of areas. Longitudinal studies are needed with a focus on the quality of the learning experience over time integrating linguistic, cognitive, and affective factors contributing to young learners' development in a variety of contexts with different L1s and FLs. It would be necessary to research case studies of both good and bad classroom practice: what children and teachers do in which language, how they interact with one another, how teachers scaffold children's development and what materials they apply and how, how peers contribute to classroom processes. In other words, it would be necessary to explore classroom practice over time and triangulate data collected from learners, teachers, and observers.

Research is also needed to set realistic achievement targets and to explore how aptitude, attitudes, motivation, anxiety, and other factors contribute to outcomes over time. It would be useful to examine how young learners' cognitive abilities develop, how their L2 learning contributes to being open and friendly toward other cultures, and studying further languages. The role of the L1 has been neglected; therefore further research is needed into how two or more languages interact with one another, and how children show developmental sequences typical of their L1 and the target language in different skills. For pedagogical applications, it would be important to explore how context-embedded, cognitively undemanding tasks can be shifted towards cognitively more demanding ones. Additionally, retrospective studies are also necessary to identify the ultimate attainment of early L2 starters. Organizational factors including the age of start, amount of exposure, content teaching, and transfer also need to be researched. The amount and role of extracurricular input should also be integrated to find out how exposure to L2 outside the classroom (e.g., from television) contribute to young learners' development. It would be helpful to establish minimal criteria for schools, teacher education, and classroom practice to avoid the pitfalls of the past. Applied linguistic researchers willing to direct their work to any of these important pedagogical areas would have much to contribute to the potential for improved practice.

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García Mayo, M. P., & García Lecumberri, M. L. (Eds). (2003). *Age and the acquisition of English as a foreign language*. Clevedon, Avon: Multilingual Matters.

This edited volume combines theory with practice, as it provides an overview of current research issues, as well as a detailed account of a special project conducted in Spain. The first three chapters discuss theoretical issues: the CPH (Singleton), phonological (Leather), morphological, and syntactic aspects (Marinova-Todd) of acquisition. The other six chapters are written by a number of researchers on how English as a third language is acquired in two bilingual communities: the Basque Country and Catalonia. Cenoz explores how age influences general proficiency, attitudes, and code mixing. García Mayo examines the relationships between age, length of exposure to EFL, and learners' grammaticality judgments. Three age groups' phonetic perception and production were examined in the chapter by García Lecumberri and Gallardo. The older students outperformed younger learners on both measures. It is important to point out that these inquiries concerned learners' levels independently from their teachers' fluency, accent, or methodology. Lasagabaster and Doiz examine maturational constrains on students' written production with the help of error analysis and by examining fluency, complexity, and accuracy. Once again, older students were better. The oral skills are studied in Muñoz's chapter; the findings are controversial. The last chapter (Victori & Tragant) explores learner strategies in a cross-sectional and longitudinal study in primary and secondary age groups. The book is a perfect example of the expertise and longitudinal research methodology increasingly typical of studies enquiring into early modern language programmes. It is based on solid theoretical grounds, the chapters are focused along burning issues related to such studies, and the chapters contain mostly quantitative analyses along comparative lines. The research methodology is almost spotless, and the accounts are deep and well formulated. The outcomes are systematically in favour of later beginners. Some decisive factors, however, are missing from the edited volume: There is no data on teachers' proficiency or classroom methodology. Therefore, it may easily be the case that the differences the chapters document convincingly result from what children are exposed to. As the book contains no information on instructional practices at schools or on teachers' fluency, accent, motivation, and other features, the reader wonders about the validity of the huge effort put into the study.

Moon, J., & Nikolov, M. (Eds.) (2000). *Research into teaching English to young learners: International perspectives*. Pécs: University Press Pécs.

The papers in this edited volume are arranged into four sections: (1) general issues and setting agendas; (2) the large picture of international and national findings; (3) teachers of young learners; and (4) classroom-based

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research exploring the smaller picture. The studies illustrate the controversial characteristics of research into what factors interact in the teaching and learning of English as a foreign language in primary schools and they document the level and status of empirical research into an area where practice has been on the increase since the early 1990s. The book documents the typical weaknesses in research, as they are not all well-designed or triangulated. Studies tend to involve only one or a few teachers and their learners, there is a lack of longitudinal inquiry, triangulation is rare, research is conducted by enthusiastic classroom teachers or qualified researchers without appropriate funding, or when the funds run out, the project and research end. Some of the papers are general in scope, whereas others are deeply embedded in the socioeducational context of the country where they were conducted. Most of the authors explore a variety of European socio-educational contexts, but American and Bhutanese participants were also involved in the empirical studies.

Moyer, J. (2004). *Age, accent and experience in second language acquisition*. Clevedon, Avon: Multilingual Matters.

The volume examines the experience and ultimate attainment of 25 educated immigrants to Germany from a number of different countries (Britain, France, Poland, Russia, Slovakia, Turkey, United States). The author explores not only participants' language achievements, but also how their ultimate attainment was influenced by their opportunities and intentions by drawing on quantitative and qualitative data. She collected data with the help of three sets of instruments: (1) a questionnaire surveying biological-experiential, social-psychological, instructional-cognitive, and experiential-social experiences; (2) controlled and semi-controlled production tasks (reading out words, a paragraph, spontaneous speech on an important or embarrassing situation, recital of short sayings or proverbs); and (3) semi-structured interviews. Speech samples were judged by three native speakers on a 1 to 6 scale. Performances on the reading tasks turned out to be the least reliable indicator of proficiency in German, whereas natural speech production was found to be the most reliable. Moyer found weaker directness and independence of age effects than suggested by earlier studies and identified four criteria to describe the quality of access to L2 and experience with L2: duration; quality of experience; consistency over time; and intensity or extent of orientations.

Singleton, D., & Ryan, L. (2004). *Language acquisition: The age factor* (2nd edition). Clevedon, Avon: Multilingual Matters.

This volume is not simply the second edition of the seminal book by David Singleton (1989). It is significantly wider in scope, although the structure has been maintained. The book provides a panoramic overview of age-related research into language acquisition. The first chapter discusses evidence of speech milestones in early language development, whereas the

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second and third chapters inquire into the evidence for and against the existence of a Critical Period in L1 and L2. The last two parts of the book outline theoretical perspectives and discuss the educational dimension of L2 learning and teaching. The authors maintain a balanced view of the sometimes controversial evidence, discuss issues in depth. The book is a great professional pleasure reading on the issues related to the age factor.

Vrhovac, Y. (Ed.) (2001). *Children and foreign languages III*. Zagreb: Faculty of Philosophy, University of Zagreb.

This is the latest sequel of publications on the 8-year longitudinal research project looking into early learning of four foreign languages by young language learners in Croatia. The chapters included in this edited volume focus mainly on language learning outcomes of young learners during the period when they were between 10 to 14 years old; language development in their earlier stages was described in the two earlier volumes. Among the areas covered are those related to learning grammar, lexical aspects of language acquisition (multiword units in young learners' speech), strategies young learners make use of during vocabulary acquisition and writing in the FL, and autonomous reading of unabridged literary texts. The volume includes theoretically oriented research texts reporting on approaches to investigating young learners in a particular area (e.g., reading skill) and project findings, as well as reports on practical teaching issues (e.g., using games or the Internet in FL teaching) written by teachers who taught in the project. The chapters are written in one of the four foreign languages included in the project—English, French, German, and Italian. Those not written in English are provided with an English summary at the end of the book.

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