

CHAPTER 1

INTRODUCTION

The widely held view “the younger, the better” for second language acquisition (SLA) has inspired a great deal of research on the age at which second language (L2) should ideally commence in order to attain native-like proficiency in the L2. Specifically, in the language domain of L2 phonology, many studies have pointed to starting age of 6 years as the upper limit to acquire native-like pronunciation in the L2, while further indicating that after a starting age of 12 years learners’ pronunciation of the L2 will be undoubtedly nonnative-like. Traditionally, most of these investigations have depicted the degree to which starting age has an effect on the attainment of L2 phonological skills in a native-like fashion in terms of the Critical Period Hypothesis (CPH) (Lenneberg, 1967). Over the last two decades, though, alternatives to the neurophysiological maturation account have been put forth. Thus, claims about the importance of the learners’ first language (L1) phonological system and their stage of L1 phonological development when L2 learning begins currently shape the interpretation of starting age effects in much L2 phonological acquisition research.

Recently, findings of native-like mastery of the L2 phonology on the part of adult and older adolescent starters have not only challenged the premises of the CPH, but also the majority view advocating an earlier age start supremacy in attaining L2 native phonological skills. Interestingly enough, the studies reporting on late L2 learners’ native-like attainment of the L2 phonology (e.g. Bongaerts, van Summeren, Planken, & Schils, 1997) have been conducted mostly in formal learning contexts, as opposed to the great many existing investigations in L2 immersion settings. Results of this kind are still incipient, thereby highlighting the need for further research on the factor of starting age in the acquisition of the target language (TL) phonology, in particular, in formal instruction learning environments.

The present dissertation, then, aims to contribute to the to date more limited findings of studies examining the factor of starting age in L2 phonological learning in a formal instruction setting. Its main objective is to assess the effects of starting age of 8,

11, 14, and 18+ years on segmental perception and production of English as a foreign language (FL) in a strictly instruction-classroom context. Native Spanish and Catalan speakers learning English through schooling solely comprise the subject population under examination. All subjects are part of a long-term study on the age factor in the acquisition of English as an FL in a formal instruction context – the Barcelona Age Factor (BAF) project – conducted at the *Departament de Filologia Anglesa i Alemanya* of the *Universitat de Barcelona* over a period of 9 years (1995-2004). In this dissertation, subject data collected between the academic years 1995-1996 and 2001-2002 are considered.

One important trait of the present research concerns starting ages of 8 and 11. These two ages are representative of either one of the two curricula that co-existed in the Spanish educational system for a period of 8 years (1992-2000). That is, starting age 11 corresponded to the age of first exposure to English as a compulsory school subject in the former curriculum. Among the various changes involved in the implementation of the new curriculum, the introduction of the study of English as an FL in the school setting at an earlier age should be emphasised – being advanced to the age of 8, in that case. Thus, the eight-year-period co-existence between the old and new curricula provided an excellent opportunity to assess and contrast the effects of onset ages of 8 and 11 (in addition to ages 14 and 18+) on the acquisition of English as an FL, from which this dissertation benefited. Further, unlike many studies in L2 phonological research, be it conducted in L2 immersion settings or formal language contexts, subjects in this dissertation and the larger study from which they were drawn had been exclusively exposed to the FL through schooling, exposure amounting to 200, 416, or 726 hours of formal instruction in English.

In summary, this dissertation attempts to provide some new insight into the factor of starting age in the learning of the TL phonology in a formal instruction learning setting. For that purpose, a literature review is first presented in Chapter 2 in order to establish the theoretical framework within which the current study was conducted. The literature review in Chapter 2 starts by defining a number of key issues in SLA (Section 2.1), followed by an examination of the factors most often considered in SLA research (Section 2.2). A section on L2 phonological acquisition studies is then included (Section 2.3), which covers the principal theoretical frameworks in L2 speech learning together with supporting studies (2.3.1), a summary of the main findings of Romance language native speakers' perception and production of English sounds (2.3.2) and of foreign

accent (FA) research (2.3.3), and an overview of a number of methodological issues in L2 phonological acquisition research (2.3.4).

Chapter 3 is concerned with the four research questions that motivated the present dissertation. The first research question addresses the factor of onset age of FL learning (8, 11, 14, 18+ years) in English segmental perception and production in an instructed-classroom setting. The second research question investigates exposure effects (200, 416, 726 hours) on the learning of the FL phonology. The third research question looks at dominance in the L1 or L1s (Catalan dominant speakers, Spanish dominant speakers, and Catalan/Spanish balanced bilinguals) in relation to the perception and production of English sounds. And the fourth research question assesses gender differences in the performance in the TL phonology. Finally, a brief section offers an outline of the actual research study.

Chapter 4 describes the methodology of the present dissertation. Section 4.1 provides an account of the characteristics of subjects in the study. Sections 4.2 and 4.3 present the task materials designed to elicit subject data – namely an auditory discrimination task and an imitation task – and the procedures followed in data collection, respectively. Section 4.4 concerns the data analyses that determined the use of nonparametric statistical tests.

Chapter 5 reports on the results obtained for the perceptual and production tasks. Section 5.1 examines the results on the auditory discrimination task as a function of the four research variables of this study – i.e. onset age of FL learning, exposure to the FL, dominant L1, and gender (5.1.1 – 5.1.4) – the effects of which on the specific vowel and consonant sound contrasts included in the task are further investigated in 5.1.5. Section 5.2 focuses on the method and results of two subsequent studies that needed be conducted on the data obtained for the imitation task. Prior to the implementation of both studies, stimulus preparation was required. In this case, the process of digitisation was carried out for the most part at the *Laboratori de Fonètica* of the *Universitat de Barcelona* and, to a lesser extent, at the Linguistics Research Lab of the University of Ottawa. Both studies were set up and conducted at the latter Laboratory (University of Ottawa). The two studies involved rating subjects' productions of English segments for degree of FA by native English listeners. Specifically, Study 1 (5.2.I) looks at the effects of the four research variables on the accent ratings obtained on six English words and six segments /i, ɪ, æ, d, s, v/. Study 2 (5.3.II) further investigates the effects of the four research

variables on the accent ratings, in addition to vowel identification scores, on seven English vowels /i, ɪ, ε, æ, ɒ, u, ʌ/.

Chapter 6 aims to provide answers to the four research questions formulated in Chapter 3 by means of discussing the results reported in Chapter 5. Section 6.1 is concerned with the discussion of the results on the perception of English sounds. Sections 6.2 and 6.3 discuss the results obtained in Study 1 and Study 2, respectively, on the production of English sounds. Section 6.4 closes this chapter by presenting a general discussion of all the findings of the study.

Chapter 7 offers a number of concluding remarks about the effects of the factors of starting age of FL learning, exposure to the FL, dominant L1, and gender on the acquisition of English perception and production skills in an instructed-classroom learning setting (Section 7.1). Section 7.2 concludes the present dissertation by suggesting a number of implications for further research.

Finally, a list of bibliographical references follows, and five appendices close this dissertation.