

Language Aptitude in Young Learners: The Elementary Modern Language Aptitude Test in Spanish and Catalan

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**LANGUAGE APTITUDE IN YOUNG LEARNERS:
THE ELEMENTARY MODERN LANGUAGE
APTITUDE TEST IN SPANISH AND CATALAN**

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INTRODUCTION

The present doctoral dissertation is concerned with language aptitude, one of the basic individual differences in the acquisition of a foreign language. It presents and discusses evidence gathered from learners of English as a foreign language (FL) aged between 8 and 14.

In the last years there has been a growing interest in the role that individual differences play in the acquisition of foreign languages. However, the study of language aptitude is by no means a new topic in applied linguistics. Actually, language aptitude, which has been considered as the most successful predictor of foreign language success (Skehan, 1989), has been of interest since the 1930s and 1940s, when the first prognosis tests started to be designed. Research into aptitude peaked in the 1960s, when Carroll and Sapon (1959) designed what would later become the most widely used language aptitude test to date, the Modern Language Aptitude Test (MLAT). There exist two versions of the test for different age ranges. The MLAT is aimed at measuring the language aptitude of post-adolescents and adults whereas the Elementary Modern Language Aptitude Test (henceforth, MLAT-E, Carroll & Sapon, 1959) can be administered to children aged from 8 to 12, according to the *MLAT-E Manual*. After a decline in the study of language aptitude, the 1990s saw a rebirth of researchers' interest in it. From then on, other aptitude tests have been designed and other models of language aptitude have been proposed (e.g. Robinson, 2002a; Sternberg, 2002a). In addition, language aptitude has started to be studied not only in adolescents and adults but also in young learners (Alexiou, 2005; Kiss & Nikolov, 2005).

Nowadays research on different aspects of FL aptitude testing is carried out. Among these, it is worth mentioning, for instance, the task of the American Second Language Testing Foundation, Inc. (SLTF), founded by Charles W. Stansfield. This Foundation, besides researching on already existing and new second language tests, published a Spanish version of the elementary version of the MLAT (the MLAT-ES) and a language aptitude test in English for junior high and high school students in 2002. Moreover, it has in its agenda the development of language learning aptitude tests for speakers of several languages other than English.

Despite this recent and growing interest, much remains to be explored in this line. For instance, since it is only recently that an instrument in Spanish to measure FL aptitude in young learners has been released and also, precisely because of the lack of such an instrument in Catalan, there is no research on language aptitude in young FL

learners whose L1s are Catalan and/or Spanish. While an instrument for use with child native speakers of the latter language has recently been elaborated, no parallel development has existed for Catalan. Therefore, another objective of this dissertation is to adapt and translate the MLAT-ES into Catalan (MLAT-EC) and to carry out the norming study of this version of the test.

A very important concern in this area is whether language aptitude is innate and stable (a residue of one's L1) (Carroll, 1973) or whether it is influenced by socio-cultural factors (Skehan's post Bristol project, 1990), or the experience of learning additional languages (McLaughlin, 1990). With some exceptions in which the MLAT-E was used, no studies have looked at how children in different grades (from 3 to 7) perform on the MLAT-ES (and, of course, on the MLAT-EC).

The first aim of this dissertation is to validate two new instruments that are needed for the study of language aptitude in the bilingual context in which the study is carried out (Catalonia). These instruments are the adaptation to both Spanish and Catalan of the MLAT-E. This test was translated into Spanish by Charles W. Stansfield, Daniel J. Reed and Ana María Velasco, who are members of the Second Language Testing Inc., for which the present author obtained validating data. The Catalan version, specially designed for this research but which will be of use for future studies on language aptitude in similar contexts, has been adapted by the author of this dissertation herself.

The second aim of this dissertation is to study the relationship existing between language aptitude, L1 acquisition and cognitive development. The norming study of the MLAT-E offers data of children from grade 3 to 6 while that of the MLAT-ES covers grades 3 to 7. It remains unknown why grade 7 has been added to the MLAT-ES norming study. In addition, in both norming studies published, while means increase steadily from grades 4 to 6, a larger increase is observed between grade 3 and 4 than between the other grades. The descriptive statistics of the mean scores of this dissertation point at the same direction. The variability in the increase of the means could be explained by the development of one's L1 and by the cognitive developmental stage at which participants are when they take the test, among other factors.

The third aim of this dissertation is related to the variable sex. While in the MLAT-E study the data appear divided according to this variable, the population in the MLAT-ES norming study appears as one cohort. It would be interesting to see if significant differences are observed between the performance of boys and girls to continue working with this variable or, on the contrary, to unify populations when using these tests.

Finally, the fourth aim of this study is to check the construct validity of the tests. The different versions of the MLAT-E are intended to measure language aptitude for foreign language learning. One way to see if this is what the tests measure is to correlate scores on the tests with measures of foreign language proficiency. As the aptitude tests used in this study are divided into four sub-tests, which basically tap phonemic coding ability, analytic ability, and memory, these factors may load differently when correlated with different foreign language aptitude measures.

With these aims in mind, this dissertation has been divided into six main chapters. In Chapter 1 the reader can find a detailed overview on foreign language aptitude and the factors that may affect it. A FL cannot be acquired without former cognitive development and L1 acquisition. Therefore, at the beginning of this chapter is an overview of cognitive developmental stages from different perspectives (developmental, information-processing, innatist) and of how they are related to both L1 acquisition and subsequent foreign language acquisition (section 1.2).

Aptitude is considered one among many other individual differences, which are not exclusive of foreign language learning. Thus, after reviewing the individual differences that occur in L1 acquisition, Chapter 1 focuses on how the concept of aptitude has changed during almost one century (section 1.3) to finally be defined as a multicomponent construct (section 1.4). Each of its components is believed to be especially relevant in different foreign language developmental stages (section 1.4.4) and, depending on how much each of its components is present in the individual, a variety of “types of learners”, so to speak, can be established (section 1.5).

The remainder of Chapter 1 is about how language aptitude interacts with other factors present in the acquisition of a foreign language. Aptitude should not be considered alone since its effects can differ depending on other factors such as age, the foreign language learning context, and the individual's sex, bilingualism, and other cognitive skills, among others.

Chapter 2 is devoted to language aptitude testing strictly speaking, focusing on mainly two tests, the MLAT, which is meant to be used with adult learners, and the Elementary version of the MLAT in English (MLAT-E) and in Spanish (MLAT-ES), meant to be used with young learners. For the three tests, the information available in the *Manuals* has been reproduced. This includes the description, standardisation, norms, reliability and intercorrelations.

In addition to the information included in the manuals of the MLAT-E and the MLAT-ES, a more detailed description of the MLAT-ES is given in section 2.3.2.1, which highlights the differences between the English version and the Spanish one and points out the challenges that a difficult task as is adapting and translating tests can

pose. The MLAT has been widely used and, therefore, it has been possible to check its validity on several occasions (section 2.2.6) and, at the same time, to criticize it (section 2.2.7). This is not the case, however, of either the MLAT-E or the MLAT-ES, as they have been barely used (section 2.3.3). In spite of their rare use, it is already possible to suggest some improvements that have aroused from administering them (section 2.3.4). Section 2.3 finishes with a review of the scarce aptitude measures that appear in the literature of aptitude in young learners. It is precisely the lack of valid measures for this population what motivates the elaboration of this dissertation (section 2.4.1). Other objectives are to further validate the MLAT-ES in a bilingual community and see if the information in the *Manual*, which refers to a population which is mainly monolingual, applies in the same way to the Catalan/Spanish bilingual population to which the MLAT-ES was administered in the present study. At the same time, the MLAT-ES was adapted and translated into Catalan (the MLAT-EC) and administered to the same population, so another objective of this dissertation is to validate the MLAT-EC. Finally, there are some inconsistencies between the *Manual* of the MLAT-ES and of the MLAT-E, referring to the division of the statistical information according to the variable sex and the addition of grade 7 in the *MLAT-ES Manual*, which are issues that will also deserve further exploration.

The objectives explained in section 2.4.2 result in three research questions for this dissertation (section 2.4.3.) which aim at answering, first of all, to what extent the MLAT-E in Spanish and Catalan are suitable language aptitude measures for learners in grade 3 to 7. The second research question pretends to see if there is any relationship between language aptitude (as measured by the MLAT-E in Spanish and Catalan) and the subjects' sex. The third and final research question attempts to check the concurrent validity of both the MLAT-ES and the MLAT-EC.

Chapter 3 will explain the methodology used for this research project. The research context appears described in section 3.2 and so are the participants in section 3.3., who are 629 bilingual children from grade 3 to 7, while section 3.4 will describe the instruments of aptitude used in depth. As this is the first time that the MLAT-ES and the MLAT-EC are used in a bilingual community, and given the fact that different item functioning could take place due to the differences between the participants in this study and those in the main validation study of the MLAT-ES, a validation study is on order. Section 3.5 explains, therefore, all the issues related to the validation of these tests taking into account the linguistic issues that may arise it being administered in a Catalan/Spanish bilingual community (section 3.5.1). As both tests were administered together, the administration design, which was a counterbalanced design, will be explained. Following, the content validity of each part of the MLAT-ES separately will

be analyzed in section 3.5.2.1, paying more attention to those items whose validity and/or discrimination power was weak and to those which could cause some kind of item different functioning due to the context in which the test was administered. Section 3.5.2.2 and 3.5.2.3 are accounts of the reliability, intercorrelations and descriptive statistics of the MLAT-ES. The same type of information will appear in section 3.5.3 but referring to the MLAT-EC. The results of the norming study of both tests will be compared in section 3.5.4 and they will also be compared to the information provided in the *Manuals* of both the MLAT-E and the MLAT-ES in section 3.5.5. This chapter will finish by describing the instruments used to determine the participants' proficiency in English, administered not only to the children participating in the study, but also to their teachers of English (section 3.6), and the procedure and criteria for correctness of the test batteries (section 3.7).

The results of the research questions which guide this study will be presented in Chapter 4. Section 4.2 will report on the results obtained by the participants on the aptitude measures across grades to see if there are any statistical differences in the results across some specific grades. Section 4.2.1 is devoted to the study of the means obtained on the MLAT-ES while section 4.2.2 deals with the mean scores obtained on the MLAT-EC. The results will be compared to those available in the norming studies of the MLAT-E (section 4.2.3) and the MLAT-ES (section 4.2.4). The comparisons of the means obtained by boys and girls will be presented in section 4.3. These will help us answer the second research question, i.e. whether there are significant differences in the means obtained by boys and girls. These results will also be compared to those available in the norming study of the MLAT-E. Finally, section 4.4 will explore the construct validity of the MLAT-ES and the MLAT-EC by correlating the scores obtained on these tests with those obtained in the English proficiency measures administered to the participants as well as with the marks that some of the participants' teachers of English provided by answering a questionnaire.

The results reported in chapter 4 will be discussed in Chapter 5. As for the results of the first research question (section 5.1), they will be discussed from the point of view of cognitive development in middle childhood and puberty as well as from the point of view of L1 acquisition, including literacy and metalinguistic awareness aspects. The results of the second research question, dealing with the variable sex, will be discussed in section 5.2 in the light of the scarce literature available on this variable in relation to aptitude and extrapolating the results to other research fields such as process-oriented models of cognitive sex differences and sex differences in language skills and stages. The third research question will be discussed in section 5.3

comparing the results obtained with those available in the norming studies and the two studies published in which the MLAT-E was used.

Chapter 7 will offer a conclusion of the results and the discussion taking into account the fact that the population of this study into aptitude is in the middle-childhood and puberty periods, which is an age-range that so far had not been studied much from an aptitude viewpoint (section 7.1). In section 7.2 the flaws of this study will be presented along with some possible ways to overcome them. Some ideas will also be suggested for further research. The references and appendices will be introduced after chapter 7.