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GRAMMATICALITY JUDGMENTS, METALINGUISTIC AWARENESS AND THE AGE FACTOR IN EFL¹

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This paper deals with the issue of the nature of grammaticality judgments (GJs) by second language (L2) learners of different age groups in an EFL context. The two main aims of the study were: (i) to compare the results obtained in GJs tasks by EFL subjects of different age groups and (ii) to determine if a higher cognitive development is related to a higher degree of metalinguistic awareness. The results show that there are important differences between the two age groups in both implicit (GJs task) and explicit (language awareness) knowledge of the target language in favor of the older learners.

1. Introduction

The present paper deals with the issue of the nature of grammaticality judgments by second language (L2) learners of different age groups in an English as a Foreign Language (EFL) context. As Gass (1983:273) already pointed out, intuitions, particularly judgments of grammaticality, have played an important role in the development of theoretical linguistics, but the study of their nature with L2 learners has not received adequate attention until quite recently (Davies & Kaplan 1998; Ellis 1990; Hedgcock 1993; Gass 1994; Munnich *et al.* 1994, and Murphy 1997).

As is well known (cf. Selinker 1972; Eubank *et al.* 1995), the language L2 learners use (*interlanguage*)

is a system in its own right. If we assume that L2 learner languages are natural languages, we would suppose that they could be investigated through the same methods as other types of natural languages, for which a main methodological device is the use of intuitions of native speakers.

We present here the results of a study (part of a larger research project) in which L2 intuitions were the subject of investigation. The aims of the study were the following: (i) to compare the results of grammaticality judgment tasks in EFL subjects of different age groups; (ii) to determine if a higher cognitive development is related to a higher degree of metalinguistic awareness in the older subjects and (iii) to establish if the same distribution between different aspects argued to be part of the pro-drop

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parameter, and previously identified in research by the author with adult learners, could also be found with these two groups of younger learners.

Grammaticality Judgments

Judgments of grammaticality refer to a speaker's intuition concerning the nature of a particular utterance. The L2 acquisition literature was, until recently, rarely based on data obtained from this method. Gass (1983:274ff) points out several reasons for this fact and the most important one concerns the learner's overall ability in the target language. There is clearly a difference between primary-language judgment data and second-language judgment data. In the former, one is asking native speakers to judge sentences of their own language system in order to gain information about the same system. That is to say, the two systems are *isomorphic* (Gass 1994). In the case of second language judgments, one is asking learners to make judgments about the language being learned at a stage in which their knowledge of the system is incomplete. Here there may be a *mismatch* between the two systems (the target system and the learner's internalized one). However, Gass (1984: 275) claims that linguistic intuitions of L2 learners are important not only for the information they reflect about a learner's grammatical knowledge, but also because of the information they can provide about L2 development. In this study we hypothesize that older subjects will obtain better results in grammaticality judgment tasks.

Metalinguistic Awareness

Besides the information grammaticality judgments provide, there is yet an additional aspect to be considered. The ability to think about language, metalinguistic awareness, is defined as an ability related to a greater facility with language. Metalinguistic activities encompass a wide range of phenomena of which linguistic intuitions (including grammaticality judgments) are one part. The common factor in most definitions given of the term is that we are dealing with some ability on the part of the

speaker to view language in and of itself and to perform certain operations on it. In this sense, grammaticality judgments are crucial in determining this ability. Investigating a learner's ability to judge grammaticality is therefore essential to an understanding of a learner's development. In this study we hypothesize that older EFL subjects will be more metalinguistic aware than younger ones, even when both groups have been studying the language for the same amount of time (approximately, 396 hours of exposure).

2. Subjects, design and materials

The subjects of this study were two groups of 30 EFL students each; one group (henceforth, Group I) of 12 year olds (puberty stage), and another one (henceforth, Group II) of 15 year olds (post-puberty stage). When the research was carried out, all the subjects had been studying English for four years; the age of onset was 8 for Group I and 11 for Group II. The subjects were bilingual Basque/Spanish and their knowledge of English came exclusively from classroom exposure.

The students were given 17 sentences related to aspects of the so-called pro-drop parameter (Chomsky 1981). The original grammaticality judgment task consisted of 30 sentences. However, as it belonged to a battery of tests, both oral and written, it was decided to reduce the number of items.

(i) six ungrammatical sentences with missing subjects

**We will be late for school if don't take this bus*

(ii) five ungrammatical sentences with subject-verb inversion

**Slept the baby for three hours*

(iii) six sentences relevant to the *that*-trace effect: two were ungrammatical in English, with extraction of subject and the complementizer *that* in position:

**Who did you say that arrived late?*

and four were grammatical with *that* omitted:

Who do you think will win the prize?

Students were asked to decide which sentences were correct and which incorrect in English. If they

thought the sentence was incorrect, they were asked to make the relevant changes.

3. Results

In Tables 1 and 2 we can see the results (in percentages) obtained by Group I and Group II respectively in the grammaticality judgment task. DK stands for "don't know", which was not an option given to the students but which was included by an important percentage in all cases. C stands for "correct" and I for "incorrect". *MS stands for the ungrammatical sentences with missing subjects; *SV for the ungrammatical sentences with subject-verb inversion; *that-t for the ungrammatical *that*-trace sentences and *that*-t for the grammatical *that*-trace sentences. The statistical (non)-significance was established by means of the two sample binomial test. Statistical data are based on actual number of responses and not on these percentages, which are use here for the sake of simplicity. An asterisk is used to indicate a statistical significant finding when the two groups are compared.

TABLE 1

Grammaticality judgment task. Group I
(12 year olds)

	DK	C	I
MS	44%	47%	9%
SV	40%	44%	16%
that-t	62%	30%	8%
vthat-t	52%	34%	14%

TABLE 2

Grammaticality judgment task. Group II
(15 year olds)

	DK	C	I
MS	44%	20%	36%
SV	47%	23%	30%
that-t	53%	43%	4%
vthat-t	61%	36%	3%

If we compare the results obtained by the two groups, we find that there are statistically significant differences between the identification as incorrect of the ungrammatical sentences with missing subjects (Group I: 9%; Group II: 36%) and subject-verb inversion (Group I: 16%; Group II: 30%). But consider now the results for the sentences related to the *that*-trace effect. What we find there is that 8% of the subjects in Group I identifies as incorrect the ungrammatical sentences, but just 4% of the older group does that, although the difference is not statistically significant.² As for the grammatical *that*-trace sentences, we again find statistically non-significant differences between the two groups as far as establishing the correctness of those sentences (Group I: 34%; Group II: 36%).

These results partially confirm our first hypothesis that older learners (adolescents) would do better in grammaticality judgment tasks. That is, we find statistically significant differences between the two groups (in favor of the older learners) as far as two aspects of the pro-drop parameter are concerned, namely, missing subjects and subject-verb inversion. There are no significant differences in the

2. It is statistically significant, though, that 30% of students in Group I consider ungrammatical *that*-trace sentences correct and, contrary to what we would have expected, 43% of Group II students does the same.

identification of incorrect and correct sentences related to the *that*-trace effect. This same split between the three aspects of the pro-drop parameter has been found in previous research by the author with adult EFL students (cf. García Mayo 1997, 1999). However, the results related to this aspect of the parameter should be considered with care in this sample due to the high percentage of students that answered "don't know" to those sentences. When the same grammaticality judgment test was given to monolingual students of the same age groups, significant differences when comparing the two groups were found in *MS and *SV sentences but, again, non-significant differences were found when *that*-trace effects were analyzed. Contrary to what was expected, the percentage of "don't know" answers was extremely low in these two monolingual groups (cf. García Mayo 1998).

Let us analyze now the results relevant to the metalinguistic awareness issue. We use here the terminology adopted by Arthur (1980) to make distinctions concerning the terms *grammatical* and *ungrammatical*. We refer to grammatical/ungrammatical from the learner's point of view as *grammatical (L)* or *ungrammatical (L)*, respectively, and we refer to grammatical/ungrammatical from the perspective of standard English as *grammatical(E)/ungrammatical (E)*. Table 3 summarizes the relevant results:

TABLE 3

Recognition and Correction of Ungrammatical (E) Sentences

Group I, (12 year olds)	
Total number of ungrammatical (E) sentences	247
(19 subjects that answered × 13 sentences)	
Number of sentences recognized as ungrammatical (L)	73 = 30%
Of those sentences recognized as ungrammatical (L)	
total number of appropriately corrected	7 = 9%

Group II (15 year olds)	
Total number of ungrammatical (E) sentences	351
(27 subjects that answered × 13 sentences)	
Number of sentences recognized as ungrammatical (L)	165 = 47%
Of those sentences recognized as ungrammatical (L)	
total number of appropriately corrected	98 = 59%

We can see that out of 13 ungrammatical sentences each student had to identify, Group I recognized 30% as ungrammatical (L) and Group II 47% of the ungrammatical (E) sentences. But, how many of the corrections made actually resulted in grammatical English sentences? As can be seen, for Group I 9% were correctly changed and for Group II 59%. Our second hypothesis is, thus, confirmed.

4. Discussion

The comparison of the results obtained from the grammaticality judgment task by the two age groups shows that, as hypothesized, adolescents do better in this type of task. Age seems to be a determining factor: although the number of hours of exposure to the language is the same for both groups (396), learners at the post-puberty stage are cognitively more developed and more proficient than learners at the puberty stage.

But other comments can also be added. Let us consider now the *explicit/implicit* dimension that Bialystok (1981) establishes, that is, the learner's ability to view the language information as an abstract entity. For Bialystok, simple grammaticality judgment tasks reflect information about implicit knowledge, but additional tasks, such as correction of errors, reflect explicit analyzed knowledge.

What we find in our data is that there are important differences between the two age groups in both implicit (see Tables 1 and 2) and explicit knowledge. As for the latter, Group I identifies 30% of the

ungrammatical (E) sentences as ungrammatical (L); those sentences were "felt" to be wrong but the students did not have an accurate idea of why they were so (only 9% of those sentences were appropriately corrected). However, older learners identify as ungrammatical (L) more sentences (47%) and they also appropriately correct 59% of those.

Thus, we can conclude with the following thoughts:

1. Age seems to be a determining factor in the acquisition of the language. The more cognitive developed students, group II, outperformed the younger ones, group I, although the number of years they had been studying the language was the same. The increased proficiency of the older group led to an overall ability to make general assessments of grammaticality and to an ability to identify and/or correct particular details.

2. Clearly, and as most literature points out, there are a number of issues to consider when using grammaticality judgment tasks. However, that does not mean that one should abandon them as a research method. As a matter of fact, the results that have been reported on in this paper, have been corroborated by other production tests (both oral and written) that the two groups of students had to take as part of our larger research project.

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