FREQUENCY AND VARIABILITY IN ERRORS IN THE USE OF ENGLISH PREPOSITIONS

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O. INTRODUCTION

For a long time teachers of English as a foreign language have been aware of the great difficulty that Spanish students encounter in mastering English prepositions. Teachers' intuitions are corroborated by studies which have shown the complexity of this part of speech for Spanish learners of English from all levels (Moreno and Ruiz 1986, Benitez and Simón 1990, Morales 1992). The feature is not restricted to any particular group of students since the foremost position of preposition errors in lists of the most frequent error types compiled from learners of English of different nationalities has been reported by researchers in the field of second language acquisition (Politzer and Ramirez 1973, Khampang 1974, Lococo 1976, Meriö 1978, Azevedo 1980, Meziani 1984, González Royo 1986).

The studies cited above differ in some respects but share the common purpose of determining the frequency of either general common errors or specific errors in learners of a L2. Moreover, there is evidence of the difficulty experienced by native speakers of both English and Spanish in using prepositions correctly (Shaughnessy 1977, Benítez and Simón 1990).

Miscelánea: A Journal of English and American Studies 17 (1996): 171-187.

In order to explain the frequency of this particular error, some researchers (French 1949; Haastrup et al 1984; García 1993) have claimed that the sheer number of prepositions in English as well as their high degree of polysemy make the task of systematization nearly impossible. This is reflected in the confusion found not only in grammar books but also in English language textbooks. Particularly in the latter, care is not always taken to emphasize important aspects such as that a given preposition has more than one meaning depending on the context or that some verbs require an obligatory preposition. Fernández (1994: 52) remarks that students learn verbs without learning that they may require a following specific preposition.

Works that contrast English and Spanish are relevant in this connexion since they predict the main problematic areas for speakers of these languages. Swan and Smith (1987) have pointed out the difficulty that Spanish and Catalan learners of English have with sentences like "I don't know who they're working for," since in Spanish and Catalan prepositions must always go with their noun phrase and cannot be end placed. Similarly, they predict that these two groups of learners will tend to follow the preposition plus infinitive construction of their native languages rather than make the necessary structural transformations that are necessary to express the same idea in English. Thus,

Spanish: Después de ver la película nos fuimos a casa English: After seeing the film, we went home

Correa (1989) and González (1992) have analyzed four English prepositions of location: "in," "on," "at" and "over" and contrasted them with their Spanish counterparts finding them to overlap in many cases. In her study, González predicts that due to the interference of Spanish, students of English will tend to use

- a) "in" in contexts where "on" and "at" are required b) "on" in contexts where either "over" or "in" are required
- c) "of" in contexts where "in" or "on" are required

If we do not restrict our analysis to prepositions but take a broad perspective to include all the learners' common errors, we find that interference of the mother tongue (L1) in the foreign language (L2) has been one of the most frequent explanations of errors. The premise underlying this hypothesis is that similarities between the two languages (L1 and L2) facilitate learning while differences hinder it and as a result errors occur in

the L2. This hypothesis has received a great amount of criticism from many sectors but especially from the well known quarters of Error Analysis and Interlanguage. A review of this literature falls without the scope of this paper, but it is worth mentioning that it was from this perspective that the concept of learner's language systematicity was introduced. Errors were considered then to be positive and systematic, which means that they are internally consistent and rule-governed.

In the last decade, in tune with tendencies in sociolinguistics, researchers of second language acquisition, Ellis (1985) Tarone (1988) have argued the existence of systematic variation in the production of second language learners. This variation can be explained and predicted in advance. It includes both the variability caused by individual learner factors and the variability caused by both the situational context or the linguistic context. With regard to the former, Pavesi (1987) has proved the effect of different kinds of linguistic exposure—classroom versus naturalistic—on the variability and systematicity of the production of prepositions of location by Italian speakers. With regard to the latter, several theories, in particular those which follow the sociolinguist Labov, assume that the linguistic context determines the variability in the forms of interlanguage. In Ellis's words, "it can be shown that the choice of one linguistic form rather than another is influenced by the linguistic elements that precede or follow the variable structure in question" (1987: 7). Some studies have shown that the presence or absence of elements respond to systematic principles. This means that certain linguistic contexts favour the production of correct forms whereas others hinder it. For instance, in a compound sentence, the omission of the verb "To be" tends to occur in the second clause and not in the first one. Similarly, the morpheme -s in the third person singular tends to be omitted in the second clause of compound sentences while the omission is less frequent in independent clauses (Ellis 1988).

1. OBJECTIVES

This study aims to describe the patterns of difficulty and the variability observed in the incorrect use of English prepositions in a descriptive composition written by Spanish speakers studying English as a compulsory subject in three state secondary schools. In particular we wish to answer the following research questions:

a) What are the most frequent errors in a descriptive composition?

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- b) Is there variability in the frequency of preposition errors among students of different state secondary schools?
- c) Can we find any patterns of variability for preposition errors related to the linguistic contexts in which they occur?

2. HYPOTHESES

We hope to support the following hypotheses:

- a) Preposition errors use will be among the three most common errors in a list of ten found in a descriptive composition.
- b) The frequency of preposition errors will be similar for students of three different secondary schools.
- c) Preposition errors will appear in some linguistic contexts but not in others.

We believe that this study has interest for language teachers because it gives them information based on real data about the recurrence of preposition errors in descriptive compositions. Likewise, this study contributes to filling a gap in the research of second language acquisition since most studies of Error Analysis and Interlanguage have focused on phonology and morphosintaxis and excluded the analysis of preposition errors. The rare studies which have dealt with the acquisition of prepositions either limit their analysis to a few prepositions, or use a very reduced number of informants or fail to report percentages of errors.² Finally, we hope to contribute to the research on variability in Interlanguage studies with a tentative qualitative analysis of the linguistic contexts where errors of preposition use appear in a descriptive writing task. Most of the research into the influence of linguistic context on the patterns of interlanguage variability has focussed on phonological features but little research has been done on other language components. We share Ellis and Roberts' opinion when they say that "by identifying how the learner varies in the use of L2 and by relating the patterns of observed variation to contextual variables, the researcher is able to study how different aspects of the context affect SLA" (1987: 4).

3. THE STUDY

3.1. Method

3.1.1. Samples

The corpus of this study is based on 290 essays written by third year students of English as a foreign language from three Spanish state secondary schools (Madrid, Pamplona, Calahorra): 118 males and 172 females between 16 and 19. The students had all completed at least two one-year courses in English and half of them had studied it in primary school. Due to differences in the amount of classroom exposure time their level varies from elementary to upper intermediate.³

3.1.2. Materials and Procedures

In order to help students focus their attention on the task, we used a visual prompt from Byrne (1967: 20). In the selection of this visual cue for eliciting interlanguage corpus, we followed Corder's (1981) recommendation to choose real and meaningful tasks suitable to the level of the learner. Participants were asked to write as much as possible about the photograph for thirty minutes during a normal school day. They were informed that the data was not to be used for student evaluation but for research and that communication and not accuracy was the most central aspect we were examining.

The collection of the corpus was followed by the coding, classification and processing of the data by means of the formal taxonomy described below and the computer programme DBASE III Plus.

We were aware beforehand that descriptive compositions tend to be characterized by the use of nouns, adjectives, present tense and a great number of prepositions which relate the referent to the particular setting. In other words, we assumed that by using a descriptive writing task we had greatly conditioned the type of linguistic data to be generated since a descriptive composition based on a photograph determines—more than other type of task—the obligatory contexts in which prepositions would appear.

3.1.3. Working definitions

We follow Dulay, Burt and Krashen (1982: 138) in defining error as "any deviation from a selected norm of mature language performance" and we take Standard English such as it is described in Quirk and Greenbaum (1985: 16) as the touchstone of what was or was not a preposition error.

Our classification of preposition errors is based on formal criteria which focus on the description of the surface alterations of linguistic items of the parts of speech.⁴ Following Dulay, Burt and Krashen (1982: 150-163) we will describe and analyse patterns of variability according to three categories: omission, addition, and substitution. Errors of omission are described as "the absence of an item that must appear in a well-formed utterance" (1982: 154),

while "addition errors are characterized by the presence of an item which must not appear in a well-formed utterance" (1982: 156). We will use the category of substitution to refer to the use of a particular preposition instead of the one that is required by a linguistic context. It should be noted that we are using this category in a broad sense which includes spelling and misformation errors.

The main advantage of adopting a formal taxonomy to classify errors is that this allows for descriptive analysis in itself without considering the possible causes of the error. Although this type of classification has been criticised as being rather limited it has also had its advocates. Among others, Hammarberg (1974) and Abbot (1980) have noted that a rigorous description and categorization of formal features of errors is the first step that should be adopted by the researcher.

We will follow Quirk and Greenbaum for the definition of preposition. For the terminology to be used in a description of the linguistic contexts where preposition errors are detected we will follow Downing and Locke (1992). Quirk and Greenbaum define the preposition in this way:

In the most general terms, a preposition expresses a relation between two entities, one being that represented by the prepositional complement, the other by another part of the sentence. The prepositional complement is characteristically a noun phrase, a nominal whclause, or a nominal -ing clause. (1985: 657)

We believe that if a student makes a lot of preposition errors it simply means that s/he has difficulties with this part of speech. Nevertheless, we are conscious that the absence of errors does not imply that a student has no difficulty in this area. As several researchers have observed (Schachter 1974; Kleinmann 1977), it may well be that the student is avoiding those structures in which s/he does not feel secure. Although in general terms we agree with these researchers, we think that the avoidance strategy does not apply to prepositions. Their great number as well as the relating functions they hold in the sentence makes avoiding them nearly impossible. For this reason, we believe that a predominance of preposition errors can be accurately understood as being a real symptom of the difficulty of learning a second language. The more frequent an error is, the more problematic that area of learning will be. We assume, as Stockwell (1965: 282) did a long time ago, that a one-to-one correspondence will be the easiest to learn. Nevertheless we do not assume Stockwell's hierarchy of difficulty, mainly because the

purpose of our study is not to establish levels of difficulty but to examine recurrence of errors and patterns of variability in prepositions and also, in part, because we believe that the difficulty of learning—and in consequence linguistic variability—depends on the task the student is engaged in (Lococo 1976, Koda 1993). As we have stated above, by using a descriptive composition we are forcing the student to use more prepositions than s/he might have to use in other types of tasks as, for instance, argumentative writing.

3.2. Results

3.2.1. Quantitative analysis

Table 1 summarizes the general data obtained and helps to contextualize the analysis following the tables.

Table 1. Data on the descriptive composition

Total number of compositions	290
Total number of errors coded	3427
Average number of errors per composition	13
Standard Deviation	8
Average number of words per paper	106

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Standard Deviation 43	
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Table 2 displays the distribution of the ten most frequent errors in the writing task analysed together with their absolute and relative frequency.

Table 2: The ten most frequent errors

Order type	Errors	%
1. Substitution of Preposition	407	11.88
2. Substitution of Noun	397	11.58
3. Substitution of Verb Tense	397	11.58
4. Substitution of Verb	284	8.29
5. Wrong order	114	3.33
6. Addition of Preposition	111	3.24
7. Omission of Preposition	127	3.71
8. Substitution of Article	109	3.18
9. Substitution of Possessive	102	2.98
10. Substitution of Participle	83	2.42

The figures reveal without any doubt that the preposition error is the most frequent one in this top ten list. Not only does it hold the first place but also appears in the sixth and seventh ranking.

Although these data are interesting in themselves we need to extend our analysis by means of adding two more perspectives: that of the formal taxonomy used and the percentage of the students who have made a preposition error. As shown in Table 3, 180 students (75.89%) made substitution errors in

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comparison with 81 (33.89%) and 79 students (33.05%) who made addition and omission errors.

Table 3: Percentage of Prep. Errors per category and student

Category of error	Students %	
Substitution	180 75.31	
Addition	81 33.89	
Omission	79 33.05	

Finally, Table 4 shows the number and percentage of the students in each centre who made any of the three types of errors of preposition.

Table 4: Distribution of categories and frequencies in each centre

Error	Madrid (%)	Pamplona (%)	Calahorra (%)
Substitution	84 (85.71)	56 (73.68)	40 (61.54)
Addition	36 (36.73)	21 (27.63)	24 (36.92)
Omission	29 (29.59)	29 (38.16)	21 (32.31)

3.2.2. Qualitative analysis

From close analysis of the students' interlingual sentences we observe two outstanding features. In the first place, we find that preposition errors appear more in certain linguistic contexts and never in others. For instance, we do not observe errors in patterns of *nominal wh-clauses* or *nominal -ing clauses*. Secondly, this qualitative analysis gives evidence of the variability of the patterns of preposition errors according to each formal category.

The following is a description of the type of linguistic contexts in which we have detected preposition errors. We will illustrate each of these linguistic contexts by means of examples selected from the corpus.⁵

Substitution

Students produced these errors in four different types of linguistic contexts:

- a) Prepositional phrases denoting position and direction functioning as an adverbial subject complement as in (1) and as adverbial as in (2) and (3).
 - 1) * The handbag was in the bench (on the bench)
 - 2) * He was walking for the path (on)
 - 3) * There was a lot of money into the handbag (in)
- b) Sentences with prepositional verbs especially in the pattern "verb + preposition + noun/pronoun":
 - 4) * The woman waited to the man (for)
 - 5) * A man is looking to the handbag (at)
 - 6) * It depends of her (on)
- c) Sentences containing a ditransitive verb with a patient object and a recipient object:
 - 7) * The woman gave some money at the old man (to)
 - 8) * He has given it at Mrs Wilson (to)
 - 9) * She gives the money for me (to)

Addition

Although a frequent error in itself, when compared to the category of errors described above the addition of an unnecessary preposition is less frequent. Nevertheless, as can be seen by the following examples, addition appears in

different types of linguistic contexts and also there is more variety than in the other formal categories analysed.

- a) Sentences with the pattern "Subject + verb + direct object." In most of the cases the verb is "invite," "thank," "help," "see" and "hear" and the direct object is a noun:
 - 10) * Jim invited to Mathews to a party
 - 11) * She thanked to her
 - 12) * The woman saw at the man
 - 13) * I help to my friends
 - 14) * She heard to the man
 - b) Preceding a possessive:
 - 15)* You forget about your handbag
 - 16)* She was trying to remember of his office appointment 17)* Her house was near of ours
- c) Double preposition in post verbal linguistic contexts functioning either as adverbial or adverbial subject complement:
 - 18) * She went quickly after of the end of the classes

 - 19) * The man ran behind of Mary 20) * It was about at 7 in the afternoon 21) * She walked around for the park

 - d) Following quantifying adjectives:
 - 22) *She gave some of money
 - 23) * He gives something of money (some money) 24) * Have you any of money?
- e) Preceding words which exclude the use of prepositions in some obligatory contexts:
 - 25) * I had to go at home
 - f) Unnecessary addition of "for" in purpose clauses:
 - 26) * She was dressing for to go her friends' party (to go, in order to
 - 27)) * They did not have money for to buy it (to buy)

Omission

As we have seen above the figures for the relative frequency of preposition omission is similar to that of preposition addition (33,5%). We have encountered omission of preposition in different linguistic contexts:

- a) Omission of "to" in sentences that contain a ditranstitive verb followed by a patient and a recipient complement (direct + indirect):
 - 28) * this man gave the handbag her owner (to her owner)
 - 29) * Mary gives her address the man (to the man)
 - b) Omission of "to" followed by omission of "it" as direct complement:
 - 30) * He ran for give her (to give it to her)
 - 31) * The man gave her (it to her)
- c) Omission of "to" in the context of it in the function of direct object (the pronoun "it" is usually omitted):
 - 32) * The woman looked the man (at)
 - 33) * She listened him (to)
- d) Omission of the preposition introducing the predicator complement that follows verbs of movement:
 - 34) * She went the park (to the park)
 - 35) * He ran the lady (towards the lady)

4. CONCLUSIONS

The results of this study indicate that English prepositions are difficult for third year Spanish secondary students. Our first hypothesis (see point 2) is clearly confirmed by their appearance in first, fifth and sixth position on the list of frequent errors. The high percentage of relative frequency of errors of preposition as well as their systematic presence in the three centres of our sample confirms the results observed by other researchers already cited in our

introduction (Lococo 1976, Politzer and Ramirez 1973, Kampang 1974, Moreno and Ruiz 1986).

Our second hypothesis in which we predicted that the frequency of preposition errors would be the same for the three centres of our sample has proved to be true only in part. Although preposition errors are certainly very numerous in the three centres examined there is also a clear variation shown by the different percentages of frequency. It would have been interesting to have controlled other variables such as the type of methodology used, the style of teaching, the type and the intensity of input given to the students as well as their proficiency in the language as determined by the length of classroom time received. This would have allowed us to interpret any changes of variation as a consequence of these variables. Unfortunately, we did not do this, obviously a limitation for the interpretation of the results of our study. Nevertheless we believe they offer a good start for a further study in which we could investigate whether preposition errors vary according to the type and the intensity of the input the student receives.

Preposition errors are certainly very common but they are not all of the same kind. Their variability is shown by the different percentages obtained in the three formal categories we have analyzed. We have seen how substitution errors are more common than omission and addition errors. The differences in percentages are not surprising as there are studies that report that omission and addition errors tend to occur in beginners.

The data gathered also allow us to confirm our third hypothesis: preposition errors appear in some linguistic contexts but not in others. We have seen how there is variability of the patterns in which substitution, addition and omission errors occur.

However interesting these results may be, they cannot be extrapolated to the whole population of Spanish secondary students. Further studies are needed in which care should be taken to use a random sample and to include students with different proficiency degrees. For example, it would be convenient to find out whether there is variability in the frequencies of errors attached to formal categories in beginners and intermediate students. In the same way, in order to achieve a more accurate picture of the difficulties, a study should include the incorrect prepositions use but correct use as well. It is also necessary to validate this study be means of a quantitative analysis of the linguistic contexts where preposition errors occur.

Nevertheless, one of the most positive aspects of this study is that the sample used contained a large number of students. This together with the high frequency of preposition errors detected gives us sound reasons to be-

lieve that English prepositions must be considered as a difficult area for Spanish learners of English. But as stated above, it is necessary to confirm these results by means of further studies in which other types of writing tasks as well as other types of formal contexts are included.

Finally, although it has not been the purpose of our study to show the interference or non-interference of Spanish in the commission of preposition errors, we want to call attention to the need for more studies in this specific area. We do not claim that interference is the only cause of preposition errors but most of the examples drawn from our corpus and already discussed in the preceding section can be interpreted as a literal translation from Spanish, particularly in examples 1, 2, 6, 16, 17, 18, 19, 22, 24, 26, and 27. These results confirm González's prediction that Spanish learners of English tend to use "in" instead of "on" and "of" in contexts where "in" or "on" are required.

Prepositions errors do not seriously interfere with communication. But, as Norrish (1980: 111) remarks, "we cannot pretend that accuracy is totally unimportant." In our opinion, it is realistic to be aware of the social expectation that a speaker should be not only fluent but accurate, and that in any case official examinations exist in classroom contexts. In the end the students will be judged not only by their fluency but also by their accuracy.a

NOTES

- 1. The term "interlanguage" was introduced by Selinker (1969, 1972). See Selinker (1992) for a recent revision of the concept.
- 2. These studies usually give the absolute frequency but they do not report the relative frequency. That is, the proportion of errors to the number of words produced in each composition. This tendency is not exclusive to error analysis of prepositions but error analyses in general, as Schachter and Celcé Murcia remarked (1983).
- 3. In order to control the degree of proficiency in the language several steps were followed. First, all third year students from the three schools were asked to respond to a survey in which there were some items designed at getting information about the length and quality of exposure to the foreign language. Secondly, the students' final marks in second and third year of BUP were collected and analysed. Finally, the degree of proficiency in the language was measured by means of the "Profile Technique" for correcting compositions (Jacobs et. al. 1989). This technique is well accepted among researchers as an objective instrument to measure

effectiveness in communication as well as a reliable way to rank students according to their degree of proficiency in the language. As the objective of this study is not to correlate the degree of language proficiency and preposition errors in the use of English language we include neither the results of the survey nor the "Profile" results. The reader may refer to Jiménez (1992) for a detailed description of these issues.

- 4. This study forms part of a large scale research project in which 90 error types were classified in order to correlate their frequencies with several individual and social variables. For further details on this classification as well as results of this research the reader may refer to Jiménez Catalán (1992).
- 5. An asterisk is used to mark the sentence containing a preposition error, and brackets for the suggested correction. Most of the examples have been shortened and in some cases some corrections have been made in order to illustrate the preposition error only.

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