The Effectiveness of Error Correction on the Learning of

Morphological and Syntactic Features

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Abstract

The study investigated the effects of correction of learners' grammatical errors on acquisition. Specifically, it compared the effects of morphological versus syntactic features. Data for the study were collected from 112 transcriptions of oral interviews with Iranian intermediate level students of English as a Foreign Language. During or following the interview the researcher corrected the participants on their grammatical errors Individualised tests focusing on morphological and syntactic errors that had been corrected were constructed for each participant and administered. Statistical analyses of the learners' scores on their individualised tests were carried out.

Results showed that treatment of morphological features was found to be more effective than that of syntactic features. It is argued that morphological features are generally learnt as items whereas syntactic features involve system learning. This finding lends support to suggestions that corrective feedback (like other types of form-focused instruction) needs to take into account learners' cognitive readiness to acquire features (Pienemann, 1984; Mackey, 1999).

Keywords: Morphemes; Syntactic features; Corrective feedback; Morphological features; Second language learning

1. Introduction

Every teacher has different criteria regarding the type of errors to be corrected. The subjective nature of this point has crucial consequences for error correction and learning a language. Early works (Cohen, 1975; Hendrickson, 1975; Burt, 1975; Whitus, 1990) in error treatment looked at general aspects of errors (frequency, stigmatization, generality...etc) and whether teachers should be sensitive when treating them. For example, Hendrickson argues that, correcting three types of errors can be quite useful to second language learners: errors that impair communication significantly; errors that have highly stigmatising effects on the listener or reader; and errors that occur frequently in students' speech and writing (Hendrickson, 1978, p. 392). However, early studies of error correction overlooked the important element of processability of the forms. This is perhaps because second language acquisition was not very much the issue of focus at the time, and more importantly, because correction was very much looked at from a pedagogical sense. In addition, the learner's cognitive side of learning still had little place in researchers' analysis of language learning.

Much of the impetus for initial work in error correction studies stemmed from the fact that some researchers became interested in the acquisitional order of morphemes (Brown, 1973; Dulay and Burt 1973; 1974; Bailey, Madden and Krashen, 1974) because they had been motivated by studies in error analysis and universal grammar views. It began with the study of acquisition of morphemes and developed to include research on learners' development, most notable of which are multi-dimensional studies and the teachability hypothesis (Pieneman, 1984; 1987; 1989; 1998). Nevertheless, in spite immense amount of research in the area of error treatment, there are still many unresolved issues in this regard; for example, the knowledge of language teachers concerning what features or structures to correct and what to overlook is still extremely limited. In other words, we do not have enough evidence as to which types of structures in the target language are more amenable to learning than others. Therefore, there is a need for further analysis of issues such as the impact of corrective feedback on learning the type of structures selected by teacher. More specifically, it may be

interesting to know whether learners learn better when they are corrected on their morphological errors or on their syntactic errors.

1.1Morphological errors versus syntactic errors

Morphological correction refers to the treatment given to the grammatical morphemes (inflections and function word), erroneously uttered by the learners. Syntactic correction refers to the treatment given to the contextual dislocation of words in the sentence- i.e. word order.

2. Research Question

This study attempts to answer the following research question:

Is there a difference in the effects of error correction on the learning of morphological and syntactic features?

3. Literature

There is no research, to the best of my knowledge that has directly compared the effectiveness of syntactic and morphological corrections on second language learners. However, the current literature on second language acquisition research reports a number of experimental and classroom studies that have indirectly compared the effect of feedback on different features without distinguishing between morphological and syntactical features. A number of these studies investigated syntax: Dekeyser, 1995 (categorical rules); Doughty and Varela, 1998 (passives and participles); Rosa and O'Neil, 1999 (conditional sentences); Robinson, 1996, 1997 (pseudo cleft of locations and subject inversion, dative alternation); Van Patten and Oikenon,1996 (Spanish object pronoun); and Shook, 1994 (present perfect and relative clauses in Spanish), and some others investigated morphemes: Carroll & Swain, 1992, 1993 (suffixes 'ment' and 'age', dative alternation); Leow, 1998 (morphological irregularities) and Alanen, 1995 (locative suffixes).

The study that is closest to the present research is Gass et al. (2003), a comparative investigation of the effect of instruction on some morphosyntactic, syntactic, and lexical features of Italian. Unlike the present study in which the syntactic and morphological features were studied by post hoc analysis of the tailor-made items, in Gass et al. (2003), the learners were placed into one of the two conditions (+ focused attention and - focused attention) for each of the three linguistic areas (syntax, morphosyntax and lexicon). The findings of their study showed that the instruction directed at syntactic forms was more effective than that directed at morphosyntatic forms. Results of the Wilcoxon matched-pairs signed ranks test showed that, when attention was involved (+attention), the greatest gain was on syntax, morphosyntax ranked second, and lexicon third. When attention was not involved (-attention), the ordering was the reverse and in the direction originally predicted. However, as Gass et al. themselves state, the fact that the morphological structure they examined had a syntactic component to it, made the morphosyntactic results very close to the syntactic results, more than might have been the case if they had used a purely morphological form (Gass, et al., 2003: 528). Based on their results, Gass et al. (2003) conclude that focused attention was better utilized in more complex areas (like, syntax).Because learners could not use their own internal resources for learning in areas that are highly complex and abstract, they needed increased attention to compensate for their lack of internal sources. They do not clarify the nature of internal resources and how they operate in learning. However, internal resources (internal factors) refer to "the mental processes that learners utilize to convert input into knowledge. They include processes involved in making use of existing knowledge (of the mother tongue, of general learning strategies, or of the universal properties of language) to internalize knowledge" (Ellis, 1994a p. 16).

4. Method

4.1 Design

The general design of the study involved meaning- based activities, and identification of randomly selected errors during the learners' reconstruction tasks in researcher-learner interactions. It involved randomly selecting of 56 learners for the Treatment Group. Their selection was based on a standard test of grammar. Then, each individual learner was asked to read two passages for information on two separate occasions. Subsequently the learner was asked to talk about the content of the task. Some randomly selected grammar errors made by the learner in each of the task passages were then corrected by the researcher (these are known as 'Error Correction Episodes') according to one of the two treatments: 1. Explicit Treatment 2. Implicit Treatment. All the interactions between the researcher and the learners were audio recorded. As mentioned earlier, error correction episodes were identified, analyzed and used as the basis for tailor made tests. It should be noted that errors made by learners in their reconstructions were specific to each learner although they were sometimes similar to others Testing for both morphological and syntactic corrections took place five to eight days after learners' reconstructions of the task passages.

This research did not include a control group because of the following reasons: The design of the study was a between-groups design that used comparison groups to investigate research questions. The comparison was made between the groups, with treatment (the independent variable) differing between them. This is referred to as 'comparison group design' Mackey and Gass (2005, p.146).

In this study, because of the nature of language processing in spontaneous production, the learners' lack of usage ability in a particular linguistic item could not be predicted by administering a pre-test. Instead, similar to Loewen (2002), each error in the learner's production was considered as an indication of the learner's weakness in that particular feature.

4.2 Participants

A total of 56 intermediate adult learners from some language schools took part in this study. To determine the general proficiency band in the study, a commercially developed practice test of grammar was used. This 40 item test was selected from Section 2 (Structure and Written Expression) of the TOEFL test. Those scoring between 50 and 70 were called on to participate in the research.

4.3 Materials

For the purpose of eliciting errors, two passages were chosen. The difficulty levels of these passages were calculated by using the SMOG Readability Formula (Developed by: Harold C. McGraw, Office of Educational Research, Baltimore County Schools, and Towson, Maryland). Both passages showed to be of intermediate levels of readability.

4.4 Testing

Individualized tailor-made tests were constructed based on the errors made by the learners' reconstruction tasks. Therefore, every learner had two tailor-made tests, each consisting of a number of test items. These individualized tailor-made tests were administered to the learners individually in a quite room five to eight days after the time of reconstruction.

4.4.1 Construction of Test Items

As mentioned previously, every learner was assigned two passages. Based on the error correction episodes in these two tasks, every learner was given two tailor-made tests, each consisting of a number of test items. Because the test items were based on the error correction episodes and errors varied significantly, the test items needed to be constructed in accordance with the categories to which errors belonged.

Generally, every error made by the learners in their error correction belonged to one of the following categories:

- 1. Phonological errors
- 2. Lexico- semantic errors
- 3. Syntactic errors
- 4. Morphological errors.

However, morphological errors and syntactic errors included a wide range of error types. The following examples of test items were constructed on the basis of such error types:

<Table 1 about here>

5. Analysis

5.1 Tailor-made Tests

Overall, there were 112 tailor-made tests, for both tasks A and B, administered to the learners. They included 764 test items measuring the same number of error correction episodes. On average, every tailor-made test contained 6.8 test items. Of these 764 test items, 256 (33.5%) measured the items pertaining to the morphological features, 117 (15.3%) measured the items pertaining to the syntactic features.

5.2 Identification of Error Correction Episodes

Identification of error correction episodes took place according to the criteria mentioned in the definition proposed by Ellis et al. (2001). An error correction episode is triggered by an error made by the learner and corrected by the researcher. It ends when the interaction returns to the topic of discussion. There were also two other criteria considered in identification of the episodes: Error correction episodes included only researcher- corrected errors (not self-corrections) and each one included only one error.

5.3 Detailed Transcription of Error Correction Episodes

The recorded sessions were copied onto a computer program to enable the researcher to listen repeatedly to the recordings. Detailed transcriptions of the error correction episodes took place at this time.

5.4 Reliability

To determine reliability in the identification of error correction episodes, a sample of 23% of the recorded tasks was evaluated by a second rater. This method of reliability judgement was the same as the one used by Loewen (2002). The resulting agreement rate was 88.3%.

5.4.1 Reliability and Validity of the Tailor-made Tests

Reliability is the degree to which a test is consistent over different test administrations. It is often established in three different ways: a) the administration of the parallel forms to the same participants, b) test-retest method and c) the measurement of the internal consistency of the test (i.e. by split half method). In the present study, it was not possible to establish reliability using test-retest method, because it did not seem logical to trial the items of a tailor-made test (belonging to one person) on other individuals or a different sample, since every participant had his/her own specific items arising from his/her own errors. Therefore, a different approach to the one mentioned above needed to be taken in order to establish the reliability of the tailor-made tests. All potential threats to the reliability of the tests were addressed. Following Loewen (2002), Brown's (1996) checklist of potential sources of error variance or measurement error was used .The checklist points to different potential sources of errors such as environment, administration procedures, examinees, scoring procedures, and test items. Ways of reducing error variance due to these factors were considered.

5.4.2 Characteristics of Error Correction Episodes

Each error correction episode addressed either a syntactic or morphological error. The frequency occurrence of all the errors in the error correction episodes was noted and the errors were classified into categories (see Appendix K for Frequency Table).

To investigate the research question, certain morphological and syntactic features were selected from the frequency table of errors. They were selected on the basis of, whether errors were sufficiently frequent in order to be analysed and weather the errors were classifiable as either morphological or syntactical. Table 2 shows the grammatical categories that constitute syntactic and morphological forms and which were selected for the purpose of analysis:

<Table 2 about here>

5.5 Scoring Procedure

The final scores on morphological and syntactic test items given to each learner would be a fraction of the correctly answered morphological and syntactic test items over the total number of the morphological or syntactic test items, which were included in Table 1 and were present in their tailor-made tests. This fraction was expressed in terms of percentage.

6. Statistical Analysis

There were two variables: The dependent variable was the learners' scores on the morphological and syntactical corrections, and the independent variable was the focus of correction. Each learner's tailor-made tests were checked to see if they included any of the test items pertaining to the linguistic focus (morphological and syntactic features) mentioned in Table 2.

For all groups descriptive statistics were calculated. These included mean, median, low and high range, and standard deviations. The particular choice parametric and non-parametric analytical techniques were made based on checking of the normality assumption. Finally, a non-parametric, two related sample test; namely, the Wilcoxon Signed Rank Test, was carried out to compare the learners' scores on morphological and syntactic items in their tailor-made tests.

7. Results: Learners' Scores on Morphological and Syntactic Test Items

Tables 3 and 4 show the total number of corrections for all tailor-made tests (TC), the mean score of correct answers (MS) as a fraction, the mean percentage (MP), and the standard deviation (SD) for each of the syntactic and morphological structures investigated.

<Tables 3 and 4 about here>

7.1 Normality of Distribution

Figures 1 and 2 show the distribution of the scores of the morphological test items and the syntactic test items in relation to a normal distribution. The shapes of the graphs show that the distribution of scores in the morphological and syntactic test items is not normal because most of the scores are bunched on the right side of the graph. The frequency of the total

correct scores has made the distribution skewed. The Kolmogorov- Smirnov statistic, that tests the hypothesis that the data are normally distributed, reveals a low significance value (p=0.00, p<0.05) for the morphological test items, and also a low significance value (p=0.01, p<0.05) for the syntactic test items, indicating that the distributions of the data differ significantly from a normal distribution.

<Figures 1 & 2 about here>

Since the frequency of scores for the morphological and the syntactic groups do not follow a normal distribution, parametric tests for comparing means were not performed. Instead, non-parametric tests, which do not require normally distributed data, have been used (Norusis, 2004).

7.2 Descriptive Studies

The mean scores for the morphological test items and the syntactic test items are 81.14 and 64.64 respectively. The 5% trimmed means for both groups are 82.65 and 66.27 respectively. They do not differ greatly from the mean scores, indicating that the mean values were not substantially affected by extreme scores (i.e., the 5% trimmed mean excludes the 5% largest and the 5% smallest values (Norusis, 1997).

The standard deviation is 18.45 for the morphological test items and 36.22 for the syntactic test items indicating that the scores on the syntactic items are more spread across the range and more heterogeneous than the scores on the morphological tests. The medians are 85.00 and 75.00 for the morphological and syntactic test items respectively. There is also a substantial difference between the ranges of the two groups. Overalls, a comparison of the descriptive statistics for both groups of test items suggests that the morphological corrections were more effective than the syntactic corrections (See Table 5).

<Table 5 about here>

Figure 3 displays the medians, the inter-quartile range, and the extreme scores in the distribution. The boxes include fifty percent of the scores in each distribution. The lower boundary of each box represents the 25th percentile. The upper boundary represents the 75th percentile. The 25th percentile for the morphological test items and syntactic test items is 71.5 and 41.75 respectively. The 75th percentile for both types of items is 100.

<Figure 3 about here>

The vertical length of the box represents the interquartile range which is 28.75 and 62.40 for the morphological items and syntactic items respectively, indicating that the scores in the morphological test items are more clustered around the mean. The medians are shown by the black lines inside the boxes. They are 85 and 75 for the morphological and the syntactic items respectively. The median line in the morphological box is positioned higher than the one in the syntactic box indicating a clear difference between the two sets of structures.

7.3 Testing the Difference in Means of the Syntactic and Morphological Test Items

The tailor-made tests for each learner included both syntactic test items and morphological test items. Therefore, a two related sample test was carried out to compare the means of the scores for both variables. Further, since the data violate at least one stringent assumption (normality) of a paired t-test, a paired t-test was not performed (Coakes, 2003). Instead, a non-parametric, two related sample test, namely, the Wilcoxon Signed Rank Test, was performed. The level of significance used for the test was 0.05. As displayed in Table 6, the results show that mean ranks for the scores of the morphological and syntactic test items are 16.44 and 11 respectively. The output, as displayed in Table 6, indicates that there is a significant statistical difference between the scores for the morphological and syntactic test items (z = -2.118, p-value= 0.034). This clearly shows that the learners scored higher on the morphological items than on the syntactic items.

< Tables 6 & 7 about here>

8. Discussion

The results of Gass' et al., study can be compared with the present research despite the fact that former involved a non-ESL/ EFL situation. Both studies investigated the extent to which focused attention affects the learning of some parts of language as opposed to other parts.

Researchers in second language acquisition concur that, in order for the learners to select the right linguistic information from input, attention is crucial (Gass, et al. 2003; Alanen, 1995; Doughty and Williams, 1998; Long, 1991; Robinson, 1996; Schmidt & Frota, 1986; VanPatten & Cadierno, 1993).

Attention causes noticing and through noticing, learners can isolate relevant parts of the input to create and test hypotheses. Noticing arises because of (1) learner's existing interlanguage which creates a 'readiness' to notice, and (2)

salience of a form in the input. Accordingly, if there is a difference in the outcome of correction for morphological and syntactic features, and if attention is the major factor in learning, then it is logical that the learners' attention (and consequently learners' noticing) is different for the two types of features.

One way to find out whether morphological or syntactic items are better noticed as a result of correction is by counting the number of successful uptake moves learners produce following morphological and syntactic corrections, because successful uptake is evidence that learners have noticed and paid attention to corrective feedback and are able to modify their output. Uptake can be defined as an attempt, by learners, to produce the correct utterance that has been modelled for them. According to Swain (1985, cited in Ellis, et. all, 2001), uptake is, of course, not the same as acquisition. The fact that a learner responds to a focus on form by producing the form correctly does not mean that the learner has acquired the form. However, it does indicate that the form has been noticed. However, the results of this study suggest that there is no difference in the extent to which morphological corrections and syntactic corrections are noticed. This can be demonstrated by looking at the number of successful uptake moves. As shown in Table 8, successful uptake following morphological corrections and syntactic corrections is 83% is 88% of total uptake respectively indicating that the difference between them is negligible. Moreover, the chi squared analysis was non-significant: $X^2 = 1.7526, 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 <$ p < .05 (i.e. did not reach the .05 level) this means that successful uptake did not differ according to whether it followed feedback of morphological or structural features. In other words, the type of structure was not influencing uptake. This indicates that both types of corrections may have been equally noticed by the learners and that noticing cannot explain why correction of morphological features was more effective than correction of syntactic features. Therefore, noticing is not an apparent factor in explaining the differences between the morphological and syntactic test scores.

< Table 8 about here>

8.1 Learning Difficulty

The main explanation for the difference between the morphological feature and syntactic features lies in learning difficulty. Learning difficulty can be explained in two different ways; it can be understood both in terms of (1) understanding a grammatical structure and (2) acquisition of a grammatical structure, in the sense of internalising and incorporating it into one's interlanguage. This relates to the distinction between explicit and implicit types of knowledge. Understanding relates to explicit knowledge which refers to knowledge that is available to the learner as a conscious representation. Learners may be able to understand and memorise the rules pertaining to the grammatical structures of a language, but this does not necessarily mean that they have acquired them. Acquisition relates to implicit knowledge. Therefore, there are two questions that need to be answered: First, which structures, morphological or syntactic, are easier to understand, and second, which structures are easier to acquire?

8.2 Understanding

Learners may have been able to understand the morphological features better than syntactic features, because the degree of complexity (difficulty level) of some morphological features was less difficult than the syntactic features. In other words, morphological features are, for variety of reasons, easier than syntactic features to understand. The difficulty level is defined according to the degree of difficulty in explaining the form metalingually, and the number of criteria required reaching a correct production of a form.

The most important factor involved in linguistic complexity, as stated by Ellis (1997a, p. 69), is the difficulty of representing a rule in a declarative, propositional form. It is much easier to explain some features (like, plural- s) than some others (like, relative clause structure). Also, as Hulstijn and De Graaff (1994, p. 103) argue, the degree of complexity is determined by the number of criteria to be applied in order to arrive at the correct form. For example, if we consider the relative clause structure, there are a number of criteria that learners need to know before being able to produce this structure. They should normally have a knowledge of basic word order, tense sequence, passive/ active, tense aspect, relative word etc. However, for plural-s, the number of criteria needed to arrive at the correct form is less. Learners probably need to know only the concept of a noun before being able to produce plural forms.

8.3 Acquisition

A number of the morphological features that were examined were developmentally early acquired features (i.e. plural-s, irregular past form, definite article). Conversely all of the syntactic features were probably beyond the learners' existing interlanguage. This made it hard for learners to learn them. Thus, a possible reason for the easier learning of morphological features in this study may be the learner's cognitive readiness. It has been claimed by researchers (e.g. Pienemann, 1987, 1989, Pienemann and Johnston, 1986) that the features that involve little manipulation of elements or little demand on short-term memory tend to be acquired early. According to Pienemann, there is self-regulating cognitive basis for the speech processing plan that constrains learner production. These plans or strategies are

entrenched in cognitive factors, such as perceptual salience and continuity of elements. Each stage is a prerequisite for the next stage as learners shed these constraints one by one. They develop readiness to learn the forms within the constraints of a particular stage and earlier stages. They are not likely to learn features beyond their existing stages.

8.4 Item vs System Learning

Another possible reason for the fact that the morphological features proved easier to learn than the syntactic features may lie in the distinction between item learning and system learning. In item learning, the learning entails learning individual exemplars, essentially what occurs when learners learn lexical items. In system learning, learners generalize their knowledge beyond the words they are given as examples to form rules. As has been hypothesized by some researchers (Hulstjin and De Graaff ,1994; Ellis,1997b; Fotos and Ellis, 1991), exemplar based item learning is less likely to occur in syntax because syntactic features have to be processed beyond the item level, whereas learners are likely to store individual, inflected word forms. A number of the morphemes in the study were more likely to have been more amenable to item learning than to system learning. Features such as articles and singular-s probabely involve system learning but some features such as irregular past and plural-s entail item learning (Ellis, 1997b). In the syntactic list, however, all the structures entail system learning.

Item learning may have made it easier for the learners to obtain higher scores on a number of morphological items (such as irregular past tense form) in the tailor-made tests. One reason for this may be related to the role of short-term memory in learning. The features and structures that involve little manipulation of elements or little demand on short-term memory tend to be learned earlier. Morphological features put less demand on short-term memory than syntactic features, because there is less manipulation of elements involved; also, they act as concrete chunks, just like lexical items. However, syntactic structures place a heavy demand on short-term memory. They include complex, abstract, and non- isolatable rules that can only be learned as a system in the course of time.

9. Summary and Conclusion

The present research attempted to determine whether there is a difference in the effect of corrective feedback on morphological and syntactic errors in terms of learning. The answer was in positive; the effect of correction on morphological features was more than it was on syntactic features. A number of reasons for this were suggested: (1) morphological features are, for different reasons, easier than syntactic features to understand, (2) learners are cognitively more ready to acquire morphological features than syntactical features, and (3) morphological features are learned as items: whereas, syntactic features are not.

9.1 Theoretical Implications

Theoretically speaking, the results lend support to suggestions that corrective feedback (like other types of form-focused instruction) needs to take into account learners' cognitive readiness to acquire features. The results also lend indirect support to Schmidt and Frota's (1986) Noticing Hypothesis. It is as a result of noticing that learners are able to process the corrective feedback. Also, it is as a result of understanding their errors that learners are more likely able to restructure their interlanguage. Moreover, the fact that correction was more successful in the case of the morphological features suggests that corrective feedback may be more effective in promoting item than system learning. However, this is speculative and in need of further study.

9.2. Pedagogical Implication

Although we found that corrective feedback worked better for morphological features rather than syntactic features, there were exceptions. There were some syntactic features for which the corrective feedback was not effective. The best recommendation that can be given to teachers is that they should take into account the learners' readiness to learn the features they have problems with. The choice of structure for correction depends mainly on the learner's developmental readiness. If the learner is a relatively advanced learner, it would probably be better to focus the correction on complex syntactical problems because these are the problems that learners are likely to have. The implication of the present study is that teachers need to be aware that corrective feedback, learners may be able to revise their hypotheses about some of their errors but not others and the teacher should not necessarily expect error correction to be uniformly successful. They must be prepared to recognize that it is sometimes effective and sometimes not effective. It will also be useful if they are aware of the feature. If the feature is beyond the learners' current developmental stage, the corrective feedback is unlikely to work. Therefore, teachers should have some sensitivity as to what kind of errors their correction is likely to have an impact on and which kind it will not.

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Table 1. Irregular Past Tenses

L: Mostly between 1885 and 1907, one Russian jeweller has made several Easter eggsBetween 1885 and 1917, a Russian jeweler a number of Easter eggs for the Tsars and their families.R: Please use a past tense form here. You should sav: 'Between 1885 and 1917, he made a number(a) has made	Error Correction Episode	Test Item
of Easter eggs for'(b) makesL: For the Tsars and their families(c) made(d) making	 L: Mostly between 1885 and 1907, one Russian jeweller <u>has made</u> several Easter eggs R: Please use a past tense form here. You should say: 'Between 1885 and 1917, he <u>made</u> a number of Easter eggs for' L: For the Tsars and their families 	Between 1885 and 1917, a Russian jeweler a number of Easter eggs for the Tsars and their families. (a) has made (b) makes (c) made (d) making

Table 2. Morphological and Syntactic Features

Morphological Features		Syntac	ctic Structures
1.	Definite Article (the)	1.	Relative Pronouns
2.	Indefinite Article (a, an)	2.	Use of Active/ Passive
3.	Regular Past Tense(ed)	3.	Wrong Word Order
4.	Irregular Past Tense		
5.	Plural 'S'		
6.	Third Person Singular 'S'		

Table 3. Descriptive Statistics of the Syntactic Scores

Syntactic Features	Total	Syntactic Features	Total	Syntactic Features	Total
1.Relative Pronouns	TC= 27	2. Active and	TC= 53	3. Word Order	TC= 37
	MS= 18/27	Passive	MS= 37/53		MS= 30
	MP= 66%		MP= 70%		MP= 82%
	SD=15.96		SD=11.22		SD= 12.53

Table 4. Descriptive Statistics of the Morphological Scores

B. Morphological	Total	B. Morphological	Total
1.Definite Article (the)	TC=56	4.Irregular Past Tense	TC= 32
	MS= 38/56		MS= 29/32
	MP= 73%		MP= 88%
	SD=12.40		SD= 3.96
2.Indefinite Article (a, an)	TC= 44	5.Plural 'S'	TC= 39
	MS= 24/44		MS= 31/39
	MP= 57%		MP= 78%
	SD= 15.53		SD= 8.67
3.Regular Past Tense (ed)	TC= 43	6.Third Person Singular 'S'	TC= 39
	MS= 33/43		MS= 24/39
	MP=78%		MP= 70%
	SD= 10.10		SD= 10.57

Table 5. Group Statistics for Scores on Morphological and Syntactic Items

Scores	Ν	Mean	Std. Deviation	Median	Range
	(Number of the learners)				
Morphological Scores	56 (100%)	81.14	18.45	85	75
Syntactic Scores	56 (100%)	64.64	36.22	75	100

Table 6. Wilcoxon Signed Ranks

		N	Mean Rank	Sum of Ranks
Syntactic/Morphological	Negative Ranks	18(a)	16.44	296.00
Test Items	Positive Ranks	10(b)	11.00	110.00
	Ties	4(c)		
	Total	32		

a. Syntactic < Morphological; b. Syntactic > Morphological; c. Syntactic = Morphological

Table 7. Wilcoxon Signed Rank Statistics

	Morphological Syntactic
Z	-2.118(a)
Asymp. Sig. (2-tailed)	.034

a. Based on positive ranks.

Table 8: Uptake in Morphological and Syntactic Corrections

	Frequency	Percent
Total Error Correction Episodes (N)	764	100%
Total Uptake	185	24%
Morphological Uptake	104	56 %
Successful	93	88 %
Unsuccessful	11	12 %
Syntactic Uptake	81	44 %
Successful	67	83%
Unsuccessful	14	17%
df	1	
p	171	
x ²	1.7526	



Figure 1. Frequency distribution of scores On morphological test items



On syntactic test items



Figure 3. Box-plot for scores on morphological and syntactic items