Explicit grammar rules and L2 acquisition

Paweł Scheffler and Marcin Cinciała

This article reports an empirical study that examines to what extent learners can identify and understand the grammatical structures they produce when they speak spontaneously. In the study, 20 upper-intermediate Polish learners of English were interviewed in English by the researchers. The structures used accurately by each learner were isolated and each of the participants was then administered a separate test. The task in the test was first to identify correct sentences and then to provide relevant grammar rules. The results show that in most cases, the learners were able to identify and explain the grammar rules that accounted for their own accurate L2 performance. In terms of second language acquisition (SLA) theory, this means that there were few grammatical structures or categories that the learners knew only implicitly. For teachers, the study indicates that explicit grammar rules can, in an indirect way, contribute to SLA.

Introduction

The notions of implicit and explicit L2 knowledge have generated a great deal of research in the field of second language acquisition (SLA). Researchers have looked, among other things, into ways of defining and measuring the two types of knowledge (for example Ellis 2008), into the interface between the two (for example Ellis 2005), and into the contribution of each of these types of knowledge to language use (for example Macrory and Stone 2000). There is also a huge literature on implicit and explicit learning processes and the effectiveness of implicit and explicit instruction (for a review, see for example DeKeyser 2003). In this paper, the focus is on the ways in which explicit grammar teaching can facilitate L2 acquisition.

Implicit and explicit L2 knowledge

Ellis (2008: 6–7) defines implicit and explicit knowledge in the following way:

- **Implicit knowledge** is intuitive, procedural, systematically variable, and automatic and thus available for use in fluent unplanned language use. It is not verbalizable. According to some theorists, it is only learnable before learners reach a critical age (e.g. puberty).

- **Explicit knowledge** is conscious, declarative, anomalous, and inconsistent (...) and is only accessible through controlled processing in planned language use. It is verbalizable, in which case it entails semi-technical or technical metalanguage. Like any type of factual knowledge, it is potentially learnable at any age.
It follows from these definitions that explicit knowledge is drawn upon in tasks not involving time constraints that preclude the planning of L2 output. This means that explicit knowledge will not be activated in, for example, spontaneous oral communication, in which time for planning is normally very restricted or non-existent. An example of a typical context where explicit knowledge could be employed by an L2 learner is an untimed multiple-choice grammar test.

By contrast, since access to implicit knowledge is automatic, no restrictions on its application will be imposed by the presence of time constraints: such knowledge may thus be called upon by learners both on untimed grammar tests and in spontaneous communication.

What follows from these definitions for language teachers is that the goal of instruction should be implicit knowledge: in general, teachers want their students to be able to use a foreign language fluently in spontaneous discourse. What we would like to show in this paper is that explicit teaching of grammar can help learners to achieve this goal.

Implicit and explicit language learning

The dominant view of L2 learning at the moment is that it is ‘a developmental process which is not subject to the learner’s conscious control’ (Willis and Willis 2007: 18). That is, language learning is not about accumulating grammar rules and through practice becoming more and more proficient at deploying them. Instead, learners are supposed to follow their internal predetermined syllabuses and to acquire L2 features when they are developmentally ready to do so. Consequently, L2 instruction should engage learners in various communicative activities that will trigger natural acquisitional processes. For many SLA specialists, the most appropriate type of communicative activity is the task (for example Ellis 2003).

Even if the above scenario is correct, it does not mean that explicit grammar instruction cannot be used to support the process of implicit language development. It seems that there are at least two ways in which it can contribute.

First, knowing explicit grammar rules may lead to learners being able to notice the structures that exemplify these rules in the input (for example Ellis 2005). For many SLA researchers, conscious noticing of formal L2 features is necessary for implicit language development (for example Schmidt 1990). Further, explicit grammar knowledge may in some cases help learners to obtain more comprehensible input: identifying, say, the present continuous construction in spoken or written discourse, and being able to relate it to the relevant rule, may lead to increased comprehension. And as VanPatten (2004: 11) says, ‘increased comprehensibility results in increased likelihood of a form being processed in the input’.

Second, for many adolescent and adult learners, being able to understand how a target language works, obviously including the rules underlying their own production, is a vital part of the learning process. That this is the case is often admitted by learners themselves: for example, Ellis (2002: 20), in his analysis of diaries written by beginner learners of German as a foreign language, was ‘struck by the depth of the learners’ concern to
make sense of the grammar of German’. He says that their diaries were ‘full of references to grammar—of their struggle to understand particular rules and their sense of achievement when a rule finally “clicked”’. This means that if explicit grammar instruction can lead to a deeper understanding of the target grammar, then it can contribute to the process of learning by making learners feel more secure. If spontaneous speech is indeed based on implicit knowledge, i.e. knowledge that is intuitive rather than conscious, then an important question for teachers is how much of the correct grammar their learners produce they can actually understand.

The study

Aim of the study

The aim of the study reported on here is to investigate whether learners can identify and understand the grammatical structures and rules that underlie their spontaneous speech. In accordance with this aim, the following research question was formulated:

Can L2 learners of English provide explicit rules for those grammatical structures that they use accurately in spontaneous oral performance?

Participants

The participants were 20 secondary school Polish learners of English, aged 16–18. Both the school and the learners were randomly selected for the study. At the time of the interviews, they were attending English instruction in their school at the upper-intermediate level. The type of instruction they were exposed to could be described as the weak version of communicative language teaching (Howatt 1984: 279): this roughly means systematic and explicit treatment of English grammar combined with a variety of practice and communicative activities.

There were 14 females and 6 males in the group. Their average exposure to formal English instruction was 8.5 years. The average time spent by a participant in an English-speaking country equalled one week (the maximum was four weeks). All the subjects can thus be described as genuine foreign (rather than second) language learners.

Procedure and data analysis

Each of the subjects was interviewed by one of the researchers. The topics that were talked about included the learners’ hobbies, their school life, trips abroad, plans for the future, etc. Each of the learners was also asked to describe two pictures. Any topic introduced by the learners was taken up as well. The interviews took place in the school outside the regular class times. They lasted between 20 and 30 minutes and were recorded. All the data from the interviews were then transcribed orthographically, and selected grammatical features were isolated and analysed for accuracy. In selecting grammatical features, we focused on those for which rules are given to learners in the process of instruction. They included tenses (simple present, simple past, present continuous, past continuous, and future simple), modal verbs, and pronominal forms (for example subject, object, possessive, and relative pronouns).
In order to determine the accuracy of grammatical features in our learners’ performance, we employed a method called Target-Like Use (TLU). The formula is as follows (for a discussion of this and other scoring methods see Goldschneider and DeKeyser 2001):

\[
\text{TLU} = \frac{n \text{ correct suppliance in obligatory contexts}}{n \text{ obligatory contexts}} + \frac{n \text{ suppliance in non-obligatory contexts}}{n \text{ obligatory contexts}}
\]

We arbitrarily adopted 75 per cent TLU as an acceptable level of accuracy for learner performance: it seemed to us that for an upper-intermediate learner, a score of 75 per cent in a spontaneous production task is a clear enough indication of L2 proficiency in a particular area. This also gave us enough material to prepare the explicit knowledge test, in which all the categories with scores of 75 per cent or more were used. In the test, each learner was provided with pairs of sentences: one member of the pair was a correct sentence used by that particular learner in the interview (sometimes slightly modified in order to avoid any other grammatical or lexical deviations), the other sentence was an incorrect version invented by the researchers, in which the relevant grammatical category was responsible for the deviation. The learners’ task was first to identify the correct sentence in the pair and then give a rule or an explanation in Polish that accounted for the contrast between the good and the bad example. The rules that the subjects were supposed to provide concerned both the form and the meaning of the grammatical categories exemplified in the sentences. In the Appendix, for reasons of economy, we provide one randomly selected set of test sentences. The number of sentences that a learner received on the test depended on the number of categories for which that learner’s TLU scores in the interview equalled or exceeded 75 per cent. Overall, the length of the tests varied from 6 to 12 pairs of sentences per learner.

The rules/explanations given by the learners were evaluated independently by both of the researchers. The marking criteria for rules generally followed those used by Green and Hecht (1992: 171–2). This means that for a rule to count as valid, the learners did not need to produce any technical language: informal descriptions of the phenomena in question were also accepted. However, if technical language was employed by a learner, then only correct terminology was accepted. This was motivated by the fact that with incorrect metalanguage, it was often difficult to determine whether a particular subject actually understood the phenomenon he/she was referring to. Since judging the validity of a rule is to some extent subjective, any discrepancies between the researchers’ judgements that arose were arbitrated by a third referee.

Results

Table 1 contains the following data concerning each of the 20 subjects: the success rate for the selection of correct sentences and the success rate for the provision of correct rules. Table 2 presents the percentages for various associations of rules and sentences. That is, the calculations are based on all the 179 pairs of sentences used in the entire test.
### Discussion

The data in Table 1 indicate that the learners were generally successful in the selection of correct sentences and the provision of correct rules or explanations for their choices. Also, as both Tables 1 and 2 show, when the learners selected a correct sentence, generally they also had the relevant explicit rule: that was the case in 145 of 179 test items, i.e. in 81 per cent of the cases. When the learners possessed a correct rule, the selection of a correct sentence was virtually guaranteed: there was only one case (0.6 per cent) in which this did not apply. Having no rule and being able to select a good sentence were also rare.

As has already been said, it is often important for learners to make sense of a target grammar. Our analysis of the data in this experiment shows that learners employ devices ranging from precise metalinguistic formulations to L1-based explanations when they need to describe the system they are learning. The three examples below (translated here into English) are fairly

<table>
<thead>
<tr>
<th>Subject number</th>
<th>Success rates (%)</th>
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<tr>
<td></td>
<td>Selections</td>
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<td>1</td>
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#### Table 1

**Success rates**

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<td>20</td>
<td>83</td>
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</table>

#### Table 2

**Associations of rules and sentences**

| Percentage of SITUATIONS where a correct rule is associated with a correct sentence | 81 |
| Percentage of SITUATIONS where a wrong rule is associated with a correct sentence | 15 |
| Percentage of SITUATIONS where no rule is associated with a correct sentence | 1.7 |
| Percentage of SITUATIONS where a correct rule is associated with an incorrect sentence | 0.6 |
| Percentage of SITUATIONS where a wrong/no rule is associated with an incorrect sentence | 2 |

*Explicit grammar rules and L2 acquisition*
traditional textbook rules:

Test item

You should eat regularly to stay healthy. correct
You should eating regularly to stay healthy. incorrect

Rule identified by a participant:

‘Should’ is always followed by an infinitive in English.

Test item

If I had a lot of money, I would travel around the world. correct
If I have a lot of money, I would travel around the world. incorrect

Rule identified by a participant:

Second conditional: past simple—‘would’ + infinitive.

Test item

Suddenly there was a waterfall and we had to go under it. correct
Suddenly there was a waterfall and we musted go under it. incorrect

Rule identified by a participant:

The past tense of ‘must’ is ‘had’. The form ‘musted’ does not exist.

It is interesting to note how the learners handled the so-called pro-drop phenomenon. English and Polish are in this respect in the subset-superset relation: in English, the subject must be present, whereas in Polish, null subjects are allowed. This means that this is a contrast that may be very difficult (if not impossible) for a Polish learner to learn from positive evidence alone.

Despite the apparent difficulty posed by this phenomenon, our learners were able to deal with English subject pronouns very well: in the interview, all of them easily exceeded the 75 per cent TLU threshold with an average TLU score of 98.6 per cent. The types of rules that the learners offered in the test were of two main types: first, four learners stated that an English verb or sentence must contain a subject, which is a rule often formulated in descriptive and pedagogical grammars. Second, six learners said that ‘if there is no person, it is not clear who or what is being referred to’. This may be a simple meaning-based explanation of limited validity, but it seems to have worked for the learners very well.

Although our subjects were in general able to handle metalinguistic terminology quite successfully, metalinguistic terms were in a few cases responsible for the problems that the learners had with giving correct rules. For example, one of the subjects, after identifying the correct sentence in the
pair below, explained the difference by saying that the noun ‘decision’ was uncountable.

Test item
I am glad that I’ve made this decision. correct
I am glad that I’ve made these decision. incorrect

When the relevant grammatical terms were lacking, the learners very often appealed to their knowledge of L1. That was especially common in handling distinctions in pronominal case forms and relatively common in the case of modal verbs. In this way, by linking English to Polish forms, the learners were able to explain the choices they made. For example:

Test item
My Mum took me to the first dance lesson . . . correct
My Mum took I to the first dance lesson . . . incorrect

Rule identified by a participant:
‘me’ = ‘mnie’
‘I’ = ‘ja’
She took ‘mnie’, not ‘ja’.

Test item
To go to a disco in Spain you must be at least 16 years old. correct
To go to a disco in Spain you can be at least 16 years old. incorrect

Rule identified by a participant:
You ‘musisz’ ( = ‘must’) and not ‘możesz’ ( = ‘can’) to be 16. This is necessary.

Regardless of the means employed, our learners succeeded in accounting for the structures used in their oral performance in the vast majority of cases. The success rates for the most frequent categories on the written test varied, but with the exception of modal verbs, they all equalled or exceeded 60 per cent.

The results presented in Table 3 largely confirm the findings of Green and Hecht (1992), whose study is also concerned with the provision of explicit grammar rules by learners. In the case of Green and Hecht’s subjects, who were German learners of English as a foreign language, the rules with high success rates were those that (1) referred to easily recognized categories; (2) could be applied mechanically; (3) were not
dependent on large contexts’ (ibid.: 179). The pedagogical recommendation that Green and Hecht make is that if grammar is to be taught explicitly, then it is rules like these that should be the focus of instruction in foreign language teaching.

<table>
<thead>
<tr>
<th>Number of test items</th>
<th>Selections (%)</th>
<th>Rules (%)</th>
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</thead>
<tbody>
<tr>
<td>Relatives</td>
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<td>92</td>
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<tr>
<td>Second conditional</td>
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<tr>
<td>Object pronouns</td>
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<td>100</td>
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<td>Demonstrative pronouns</td>
<td>18</td>
<td>100</td>
</tr>
<tr>
<td>Simple present</td>
<td>14</td>
<td>100</td>
</tr>
<tr>
<td>Simple past</td>
<td>10</td>
<td>80</td>
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<tr>
<td>Subject pronouns</td>
<td>20</td>
<td>100</td>
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<tr>
<td>Possessive pronouns</td>
<td>19</td>
<td>100</td>
</tr>
<tr>
<td>Modal verbs</td>
<td>19</td>
<td>100</td>
</tr>
</tbody>
</table>

A similar recommendation can be made on the basis of the present results. If we look at the top four categories, all of them meet at least one of Green and Hecht’s criteria. In the case of rules formulated for relative pronouns, all the criteria seem to be met:

Test item

I know a lot of people who speak English very well. correct
I know a lot of people which speak English very well. incorrect

Rule identified by a participant:

‘who’ is used for people, ‘which’ is used for things.

Typical second conditional rules, as shown by one of the examples above, can also be applied mechanically, and object and demonstrative pronouns can be described as ‘easily recognized categories’ that do not depend on ‘large contexts’. As has already been said, object pronouns were handled mainly through references to Polish case forms. The rules for demonstrative pronouns normally involved references to the category of number:

Test item

Paris was really nice, I would like to go there this year too. correct
Paris was really nice, I would like to go there these year too. incorrect

Rule identified by a participant:

We use ‘this’ when it refers to the singular (‘year’) and we would use ‘these’ with the plural (e.g. ‘years’).
Further, some of the rules concerning the use of tenses were formulated in such a way that they could be applied mechanically, i.e. they referred to specific lexical items. For example:

Test item

Computers are great because they usually do what you want them to do.  
Computers are great because they are usually doing what you want them to do.

Rule identified by a participant:

‘Usually’ is used with the present simple.

However, as the following simple past example shows, rules in this area of grammar were often of a more general nature:

Test item

Two years ago the Red Cross has sent me...  incorrect
Two years ago the Red Cross sent me...  correct

Rule identified by a participant:

The simple past tense, time of the action is given.

Rules like the one above concerning the present simple tense can, in our view, be described as ‘informal pedagogical formulations of limited validity and scope’ (Westney 1994: 77), i.e. they can be described as rules of thumb. While in a few cases, they enabled our learners to make appropriate selections, it seems that, in general, their applicability is rather limited: they seem to be useful at lower levels of instruction, where only the most basic differences in meaning are important. So, for example, as far as tenses are concerned, linking frequency adverbs like ‘usually’ and ‘always’ with the present simple and prepositional expressions introduced by ‘for’ with the present perfect may work for beginners, but for more advanced learners, it is certainly much too crude. In the case of advanced learners, what is needed is probably an explanation rather than a mechanical rule and a lot of exposure to the relevant structures in extended contexts.

Summing up, the discussion of the data shows that our subjects used three types of devices to account for the grammar they knew: precise metalinguistic formulations, rules of thumb, and L1-based explanations. It seems to us, then, that all of them deserve a place in the teaching process. While simple metalinguistic descriptions are commonplace in modern foreign language teaching materials, the use of L1–L2 correspondences is not, even in locally produced coursebooks. In our view, the contribution of the mother tongue to the development of explicit knowledge could be much greater than it is at the moment: as Swan (2007: 293) says, students ‘effectively know’ various aspects of English grammar before they start...
learning it, and ‘the existence of cross-language equivalents can substantially reduce the teaching needed in some areas (…)’.

**Conclusion**

In the study reported in this paper, the learners first participated in a spontaneous oral interview and then they were tested on the rules corresponding to the grammatical structures that they had used accurately in the interview. According to the framework of Ellis (2008), this means that they were asked to perform three tasks: first, to produce spontaneous output based on implicit knowledge; second, to identify correct structures from this output with the help of implicit and/or explicit knowledge; and third, to analyse these structures appealing to explicit knowledge. As for tasks two and three, most of the learners were able to identify correct structures in the input and then to explain the grammatical choices they had made in the interview. That is, there were few grammatical structures or categories that the learners knew only implicitly. The answer to the research question addressed in this paper is, therefore, affirmative.

The recommendation we would like to make on the basis of our results is that language teachers should invest some classroom time in explicit grammar instruction: our data show that at least some grammatical phenomena can be successfully taught as simple rules. The success here refers to benefits of two kinds. First, simple metalinguistic descriptions can be meaningful to learners, in that learners should be able to notice in the input some of the formal L2 features they have been taught and use them to make sense of this input, i.e. to make it more comprehensible. It also seems that many learners can use simple metalinguistic descriptions accurately when discussing English grammar. Second, since grammar rules foster the understanding of one’s grammatical output and, in this way, contribute to a sense of security, confidence, and achievement on the part of the learners, they contribute to the learning process in general.

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**References**


The authors

Pawel Scheffler is a researcher and lecturer at Adam Mickiewicz University, Poland. His research interests include SLA, modern English grammar, and corpus linguistics. He has published in a variety of journals both in Poland and abroad. He also writes language teaching materials for Polish learners of English.

Email: spawel@ifa.amu.edu.pl

Marcin Cinciała is a PhD student at Adam Mickiewicz University, Poland, where he received his MA in Linguistics in 2007. His MA thesis focused on contemporary approaches to Control Theory within minimalist syntax. His current research interests include generative grammar, contrastive Polish-English syntax, and the relation between grammar and SLA.

Email: marcinc@ifa.amu.edu.pl

Appendix

Subject 4: test sentences

1a) When I finally got those tickets I was very happy.
1b) When I finally got that tickets I was very happy.
2a) The girls in the corner sleeps.
2b) The girl in the corner is sleeping.
3a) Last year I went to her concert in Berlin.
3b) Last year I have gone to her concert in Berlin.
4a) I often listen to English pop music. I think it’s a good way to learn English.
4b) I am often listening to English pop music. I think it’s a good way to learn English.
5a) Mary wants to be an actress but I think is too shy.
5b) Mary wants to be an actress but I think she is too shy.
6a) I don’t want to go with they.
6b) I don’t want to go with them.
7a) I really like my teachers.
7b) I really like me teachers.