Cognitive Linguistic Approach to Teaching English Phrasal Verbs: Experimental Evidence on “V+down/up” Constructions

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Abstract. English phrasal verbs are difficult for foreign language learners to learn. Some experiments have been conducted under the Cognitive Linguistic (CL) approach and found that it is more effective than the traditional teaching method. But all of their subjects are not Chinese English learners (CELs). Therefore, this paper will conduct an experiment on teaching adult mid-level CELs “V+down/up” constructions. The subjects are divided into two groups, one is experimental group taught by CL approach, and the other is controlled group taught by the traditional teaching method. The finding is that the two groups differ significantly \(p<0.05\) in learning “V+down/up” constructions, indicating that the adult mid-level CELs taught by CL approach perform better than those by the traditional teaching method. This paper also argues that teaching two constructions as a pair with several related metaphorical concepts at a time under CL approach is an effective way for the adult mid-level CELs without English language environment.

Introduction

English phrasal verbs (PVs) for a long time have been considered difficult to learn during the time when people learn them from the structural approach. Since the appearance of the Cognitive Linguistics (CL), many language phenomenon including PVs can be analyzed, i.e. there are some motivations behind them, which provides some solutions for teaching PVs. Since then, some experts have done some experiments on teaching phrasal verbs by CL approach. All their studies\(^1,2,3\) have reached a conclusion that CL approach is indeed a great help to teach and learn PVs, i.e. learners can learn PVs better by forming awareness of metaphorical concepts. Yet the subjects of their studies are not Chinese English learners (CELs). Therefore, in order to provide further evidence, this thesis attempts to do an experiment on CELs in applying CL approach to teaching “V+down” and “V+up” (“V+down/up”) constructions with nontransparent meanings. The aim of the present study is to provide evidence demonstrating whether adult mid-level CELs taught by CL approach can perform better than those taught by the traditional teaching method in learning “V+down/up”.

Experiment

Method

Subjects

Subjects were 60 English majors of University in China. They have at least studied English for more than seven years and reached mid-level of English. Their age ranged from 19 to 21 years old, including male and female. The subjects were divided into two groups: experimental group (EG) and controlled group (CG).


**Materials**

**Materials for Pre-test.** Eighty “V+down/up” were selected for the pre-test from *Longman Dictionary of Phrasal Verbs* [4], *Oxford Phrasal Verbs Dictionary* [5], *Collins COBUILD Dictionary of Phrasal Verbs* [6] and *A Dictionary of English Phrasal Verbs with Bilingual Explanation* [7]. They include six metaphorical concepts (3 pairs): DECREASE/INCREASE IN QUANTITY, LOWER/HIGHER SOCIAL STATUS, and LOW/HIGH SPIRIT. All of them are comparatively not so transparent in meaning. For example, the meanings of “drive down” in “The corporate giants try to drive down wages in order to make superprofits”, and of “drove up” in “The oil shortage drove up the prices chemical fertilizers on the world market” are not so transparent. Therefore, “V+down/up” with the concepts of FROM A HIGHER/LOWER POSITION TO A LOWER/HIGHER POSITION were not selected for its transparency.

**Materials for Instruction.** In terms of the result of pre-test, 30 “V+down/up” on six concepts were selected from the pre-test materials. The selection standard was based on the amount of the subjects’ errors, from high to low rate, i.e. the more errors the subjects made on PVs, the more opportunities PVs had to be selected.

**Materials for Tests.** There were 30 items as a whole, all of which were selected from the pre-test materials. Items 1-20 were taught in the experiment, but sentences were not originally taken from the instruction, most of which were modified so as to avoid hints in sentence contexts. Items 21-30 were not taught, selected directly from the pre-test. All the materials were sentences.

**Procedure**

The experiment was conducted in four steps: pre-test, instruction and immediate post test (post-test 1), one week delayed test (post-test 2), one month delayed test (post-test 3). All the tests for EG and CG were conducted at the same time separately in different language classrooms of the university. The procedures of the experiment in detail were as follows:

**The First Procedure.** All the subjects took part in the pre-test, which took place in language classrooms respectively within 30 minutes.

**The Second Procedure.** The time was 40 minutes as a whole: 20 minutes for instruction; 10 minutes for learning by rote; 10 minutes for test. The specific processes of the two groups were as follows:

EG: Before the experiment, the instructor grouped “V+down/up” in terms of three pairs of concepts, printed the materials for each participant, and prepared cognitive knowledge for explanation with Power Point, such as the image schemas for DOWN/UP and three examples for each concept. In the experiment the instructor did the following:

(i) Instruction phrase: Firstly, Subjects were distributed two-sheet input materials: There were 24 items, 8 of which were arranged under each pair of concepts of DOWN/UP. The subjects were told that they would be tested on the meanings of PVs taught in the experiment, but the result of the test was not related to their class. Memorization strategy was based on what the instructor taught, which was also written on the first page of paper as instructions. Secondly, the definition of PVs was explained. Thirdly, the image schemas for the spatial concepts of DOWN/UP (See Fig. 1 and Fig. 2) and its metaphorical concepts related to PVs they would learn were presented and explained from the cognitive perspective. For example, on the basis of the image schemas for the spatial concept of DOWN/UP we have obtained in our daily experience, the metaphorical concepts DECREASE/INCREASE IN QUANTITTY are explained respectively like this: If we pour some water out of a cup, the water level would be lower, and we can get the metaphorical concept DOWN IS LESS; if we pour some more water into a cup, the water level in the cup would rise, and we can get the metaphorical concept UP IS MORE. Then “He turned down the radio” means he made the volume of the radio smaller; “He turned up the radio” means he made the volume of the radio larger. Fourthly, the meanings of “V+down/up” were explained.
(ii) Learning by rote phase: 10 minutes were given to subjects to learn “V+down/up” by heart. After 10 minutes the instructor collected all the materials distributed to the subjects.

(iii) Test phase (post-test 1): subjects were given 10 minutes to complete the test on “V+down/up” by giving meanings either in English or in Chinese, i.e. the retention of meanings of “V+down/up”.

CG: Teaching materials on “V+down/up” were prepared in a random order and printed for each participant. There were three phases in the experiment, too.

(i) Instruction phrase: Firstly, subjects were distributed two sheets of paper with input materials. The subjects were told that they would be tested on the meanings of phrasal verbs taught in the experiment, but the result of the test was not related to their class. Secondly, instructor defined PVs. Thirdly, instructor explained meanings of “V+down/up” to subjects.

(ii) and (iii) phases were the same as those of EG.

The Third and Fourth Procedures. The tests were given to the subjects of both groups one week later (post-test 2) and one month later (post-test 3) respectively. The test time and content were the same as post-test 1.

All the subjects took part in the experiment as required by the instructor, no one was absent, or late.

Results

In order to guarantee the result is true and reliable, we especially assigned an instructor who is familiar with CL approach to teach the subjects of EG, and an instructor who does not know CL approach to teach the subjects of CG. In this way, both different teaching aims could be reached without any unconscious influence on students’ learning, especially CG. Both instructors discussed teaching processes in detail with the author respectively.

After the three post tests, one instructor was assigned to check all the test paper so as to be relatively fair for every one in each test; another instructor was assigned to check them again so as to avoid carelessness. The results were as follows:

<table>
<thead>
<tr>
<th>Items</th>
<th>Pre-test</th>
<th>Post-test 1</th>
<th>Post-test 2</th>
<th>Post-test 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EG</td>
<td>CG</td>
<td>EG</td>
<td>CG</td>
</tr>
<tr>
<td>1-20</td>
<td>81.54%</td>
<td>82.16%</td>
<td>9.56%</td>
<td>28.84%</td>
</tr>
<tr>
<td>21-30</td>
<td>68.66%</td>
<td>69.24%</td>
<td>16.22%</td>
<td>35.12%</td>
</tr>
</tbody>
</table>

Table 1 shows that in Pre-test the errors made by EG are almost the same as those made by CG, but in items 1-20 of all the three post tests the errors made by EG are less than those made by CG.
According to Mann-Whitney tests, two groups differ significantly ($P < 0.05$) on items 1-20 they have learned. And on items 21-30 they have not learned of the three post tests, the two groups differ significantly ($p < 0.05$) in terms of Mann-Whitney tests, too.

**Summary**

The research question is whether adult mid-level CELs taught by CL approach can perform better than those taught by the traditional instruction method in learning “V+down/up” constructions.

In terms of the Mann-Whitney tests on items 1-20 of the three post tests, i.e. “V+down/up” constructions they have learned, there are significant differences between the two groups. The adult mid-level CELs taught by CL approach perform better than those taught by the traditional instruction method. This indicates that CL approach is more effective than the traditional instruction method in teaching “V+down/up” with several concepts. In order to investigate the reasons for the results, a talk was held by the instructor who taught with CL approach in the experiment. Ten subjects of EG were drawn out in a random. The talk was concerned about how they had learned “V+down/up” during the teaching/learning process. Eight of them said that after they had learned the spatial meaning of down/up explained by image schemas of DOWN and UP, i.e. “from a higher position to a lower position” and “from a lower position to a higher position”, they found it easier to understand and learn the other three pairs of metaphorical concepts, i.e. DECREASE/INCREASE IN QUANTITY, LOWER/HIGHER SOCIAL STATUS and LOW/HIGH SPIRIT. By doing so, they do not need to memorize the meanings of PVs individually, but to memorize them as pairs of metaphorical concepts based on the image schemas of DOWN and UP, which minimized the difficulty and time of learning and memorizing PVs. Furthermore, there are eight “V+down/up” for each pair of the concepts, and they found that there were some relationships among them, which indicates that there are sufficient specific language items for them to learn the concepts. Thus their familiarity to the three concepts help them learn “V+down/up” much quicker. What they said conforms the Usage-based Model Theory, that is, when the frequency of input is sufficiently enough, they can make a generalization [8]. As a result, the CL approach can help them make a generalization of “V+down/up” as soon as they have been taught the metaphorical concepts, which decreases their learning or memorizing difficulties and they can maintain the PVs longer in the mind. This manifests that the adult mid-level CELs taught by CL approach can learn PVs more effectively than those by the traditional teaching method.

Another possibility is that active process in learning is more effective than passive process. In other words, subjects taught by CL approach are required to process the materials actively, i.e., they learn the three pairs of abstract metaphorical concepts in terms of their basic specific experience, but the subjects taught by the traditional teaching method are passive in learning and memorizing the meanings of PVs without any input of cognitive knowledge. As we know that language is closely related to non-linguistic knowledge, such as culture, society and people’s cognition, i.e. “language is an extension of other cognitive domains” [9], thus language proficiency is a reflection of comprehensive knowledge. The more active the processing is, the better the subjects learn the meanings of “V+down/up”. As a result the subjects of EG could learn better than those taught by the traditional teaching method. Therefore we think it necessary to cultivate their metaphorical thinking capacity by CL approach in teaching PVs. A good teaching method should not only help the students to learn language, but also encourage them to gain active and explorative study methods and creative thinking in language learning.

**References**


