Conceptual metaphor awareness on English phrasal verbs teaching and learning for adolescents in Taiwan
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Abstract
The components of English phrasal verbs comprised opaque relationship make them complicated to be processed by second language learners. The present study aims to apply mainly conceptual metaphor awareness method (hereafter, CMA) to facilitate adolescents’ phrasal verbs learning. The literature conducts empirical teaching experiments on adult learners due to their cognitive mature and higher language proficiency. By contrast, the present study employs junior high school students with basic English proficiency as participants. The research questions underlying the study are (1) Whether or not teenagers will benefit from CMA method on phrasal verbs teaching? (2) Does the experimental group, taught by CMA method, outperform the control group, guided by memorization, on vocabulary retention? (3) As for interpreting unfamiliar phrasal verbs test, does the experimental group have better performance than the control group? The results, on the whole, confirm CMA’s positive effect to aid participants on learning English phrasal verbs. However, only on the performance of unfamiliar phrasal verbs test does the experimental group have distinctively better performance. The results show little evidence that CMA will foster participants’ phrasal verbs on memory retention. The reason for the negative effect on phrasal verbs’ memory retention is related to participants’ learning experience, who only rely on memorization and are only taught before by memorization, which being a dominant “strategy” to learn phrasal verbs among adolescents in Taiwan. Some pedagogical suggestions and alternative teaching material will be reported to help language learners overcome the difficulty that phrasal verbs accompanied.

Key words: conceptual metaphor awareness, phrasal verbs, cognitive linguistics

1. Introduction
Many second language acquisition researchers develop numerical approaches and methods to aid learners to acquire a foreign language. Vocabulary teaching is a notorious area that many language learners suffer (Kövecses & Szabó 1996; Boers & Demecheleer, 1988; MacLennan, 1994). This situation alone makes it worthwhile for researchers to apply cognitive linguistics, especially its subfield cognitive semantics (hereafter, CS), which is suggested to facilitate teaching and learning of vocabulary
The present paper aims to apply conceptual metaphors into English phrasal verbs teaching for junior high school students in Taiwan. The notion of conceptual metaphors embeds the two other CS mechanisms, polysemy and family resemblance, which viewed as the building blocks for conceptual metaphors. Phrasal verbs are defined here as a structure that “combines a verb and invariable particle that function as a single unit both lexically and syntactically” (Liao & Fukuya, 2004:196). Phrasal verbs are regarded as dead metaphors with arbitrary and unrelated system (Side, 1990; Verspoor 2008). However, if one applies the cognitive CS to this field, one can derive insightful and meaningful learning. For example, CS researchers (Yagihashi, 2003; Csabi, 2004; Kövecses & Szabó, 1996; Boers, 2000) conduct the empirical teaching experiments with prosperous findings. However, they all recruit adult learners due to their cognitive mature and participants’ language proficiency is intermediate to high with enough ability of language manipulation; on the contrary, the present study employs junior high school students with basic English proficiency as participants to evaluate whether or not applying CMA approach into phrasal teaching will aid their learning.

The structure of the paper is as follows. First, the previous empirical studies on applying CS into English teaching will be reviewed. Second, the methodology including participant’s background, the procedure and the design of the experiment, and items that evaluate participant’s performance will be reported. Third, the results to the research questions are shown. Fourth, the discussion section is elaborated by L1 transfer, alternative teaching material, and pedagogical implications. Finally, the conclusions remarks close the paper.

2. Literature review

This section unfolds how the previous literature employs CS mechanisms to facilitate vocabulary learning. Besides, we will further delve into the application of polysemy, family resemblance, and conceptual metaphors mechanism to assist phrasal verbs teaching and learning.

Kövecses & Szabó (1996) report an experimental classroom study that teaching the strategy of CS mechanisms fosters the learning speed of phrasal verbs. Yagihashi (2003) utilizes the metonym, metaphorical extension and polysemic concept to speed up English vocabulary acquisition for Japanese learners. Gibbs (1993) claims phrasal verbs should be analyzed due to their compositional and motivated characteristics. Boers (2000) reports enhancing learners’ metaphorical awareness will facilitate their vocabulary retention. These researchers all suggest the advantages of utilizing CS approaches into English phrasal verbs teaching and learning.
With respect to the application of prototype and family resemblance into teaching and learning phrasal verbs, the particle is the notion of polysemic formation (Side, 1990; Lakoff, 1987; Kövecses & Szabó, 1996). A polysemic word is defined that “a word has multiple senses related in the same phonological structure” (Yagihashi 2000: 31). For example, Side (1990) analyzed the related senses of up are in an upwards direction, increasing, growing, and improving. The typical member in a category is called “prototype”. In the category of up, the prototype is in an upwards direction, and based on this notion is extended to refer to other meanings such as increasing, growing, and improving. Meanings are shifted from the prototype to peripheral ones, and this is the network called “family resemblance”. This concept is crucial for phrasal verbs teaching and learning because it accounts for the related senses of up like blow up (increasing), bring up (growing), cheer up (growing) and business is looking up (improving). These meanings of phrasal verbs can be taught at one time with the prototype and family resemblance so as to make English phrasal verbs learning more efficiently.

As regards conceptual metaphor, the principle of motivation defined by Lakoff (1987: 448) as “the relationship between A and B is motivated just in case there is an independently existing link L, such that A-L-B fit together. L makes sense of the relationship between A and B”. The meaning extensions are motivated by conceptual metaphors. Conceptual metaphor brings two domains of knowledge into correspondence; one is source domain and the other is target domain. The logic of the source domain is mapped onto the target domain, that is, the source domain is typically applied to provide understanding about the target domain (Lakoff & Johnson, 1980). For example, Kövecses (1986) has shown English contains enormous expressions to describe anger and those are motivated by conceptual metaphors. For example, Anger as a hot fluid in a container may give rise to some expressions such as anger welled up inside me, I am boiling with anger, simmer down, and he blew up at me. These idioms and expressions can be learned in an organized group at one time to consolidate learning process.

From these CS mechanisms, we realize that idioms are not completely arbitrary or unrelated. Instead, looking deeply at the formations of idioms, we know they are conceptual, motivated, and related, in nature. Thus, it is worthwhile to teach the phrasal verbs by CS methods.

The present study seeks to answer the following research questions. (1) Whether teenagers with basic foreign language proficiency will benefit from CMA method on learning English phrasal verbs? (2) Does the experimental group outperform the control group in vocabulary retention? (3) Does the experimental group have better performance than the control group while interpreting unfamiliar phrasal verbs?
3. Methodology

This section focuses on participants’ background, where their age and language derivation will be discussed and compared to previous literature. Then, the procedure and design of the experiment will be elaborated. Eventually, items that evaluate participants’ performance will be reported in an attempt to seek out the results of research questions.

3.1 Participants

The experiment recruits thirty eighth-grader junior high school students in Tainan city, Taiwan. All of them are at the age of 13 or 14 whose language proficiency is basic. Participants are divided into two groups, namely, control group and experiment group, each with fifteen. The reason why they are chosen is to make the differentiation with prior studies. The prior studies (Ygihashi, 2003; Csabi, 2004; Bower, 2000; Kövecses & Szabó, 1996) focus on applying cognitive mechanisms on adult learners who are with intermediate language proficiency. Boers (2000: 563) suggests intermediate English proficiency learners will benefit through CMA teaching. Since beginners are impeded by a short of vocabularies; thus, many figurative expressions are not known by them. On the other hand, advanced learners, they tend to be more inhibited and hesitated to transfer idioms. With respect to age, Andewou & Galantamos (2008) suggest adults are more sensitive to comprehend CS mechanisms due to their analytic ability and mature process. The present study hypothesizes teenagers with basic language proficiency will have beneficial merits on learning phrasal verbs through CMA method.

3.2 Experimental process and design

The number of English phrasal verbs is quite large, and we decide to cope with the adverbial particles off and up. Before the experiment, all participants will be taught twelve phrasal verbs with off and up, six with off particles and six with up.

However, the teaching procedures are different for two groups. For control group, the researcher wrote down twelve sentences with phrasal verbs and their Chinese translation (see Appendix 1). Learners were instructed to memorize these phrasal verbs. For experimental group, the researchers apply CS to explain the meanings of twelve phrasal verbs (see Appendix 2). For example, the researcher will teach participants the concept of being finished or complete, is commonly understood in terms of the concept up. Then, it leads to orientational metaphor completion is up such as broke up, make up, and eat up. Another orientational metaphor stop is up such as give up. These phrasal verbs are instructed by the combinations of conceptual metaphors, polysemy and family resemblance.

After the lecture, participants are left fifteen minutes to digest all the phrasal verbs. Then, learners in both groups are given ten minutes to fill twelve questions,
filling in up or off (see Appendix 3). Six of the items are taught in the lecture, and the other six are new for them.

3.3 Items that evaluate participant’s performance

After the participants have done the test, the researchers measure the effectiveness of learning methods for control and experimental group by calculating (1) the correct rate of overall responses (2) the correct rate of taught phrasal verbs for questions 1, 3, 6, 9, 11, 12 (3) the correct rate of unfamiliar phrasal verbs for questions 2, 4, 5, 7, 8, 10. The rationale to ask learners to fill in the same questions lies in that we attempt to figure out which group has better vocabulary memory retention. The purpose of questioning the other six new questions is to test the ability of logic inference; that is, the effect of CS application to untaught phrasal verbs automatically.

4. Results

In this section, we will estimate the effectiveness of the control and experimental group’s lectures by answering the three research questions.

4.1 Performance of the overall test

The overall performance, based on the percent of correct answer (see Table 1), the experimental group obtains 79.44%. This is considerably higher than the control group whose correct rate is 73.88%. Participants in the experimental group can figure out the meanings of idioms based on the related senses, so they can link a literal word to idiomatic meaning. This confirms the research question that the group who is trained through CMA does facilitate phrasal verbs learning.

<table>
<thead>
<tr>
<th>Question</th>
<th>control group performance</th>
<th>experimental group performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12/15 (80%)</td>
<td>13/15 (86.67%)</td>
</tr>
<tr>
<td>2</td>
<td>8/15 (53.3%)</td>
<td>10/15 (66.67%)</td>
</tr>
<tr>
<td>3</td>
<td>14/15 (93.33%)</td>
<td>12/15 (80%)</td>
</tr>
<tr>
<td>4</td>
<td>6/15 (40%)</td>
<td>8/15 (53.3%)</td>
</tr>
<tr>
<td>5</td>
<td>8/15 (53.3%)</td>
<td>10/15 (66.67%)</td>
</tr>
<tr>
<td>6</td>
<td>13/15 (86.67%)</td>
<td>12/15 (80%)</td>
</tr>
<tr>
<td>7</td>
<td>9/15 (60%)</td>
<td>11/15 (73.33%)</td>
</tr>
<tr>
<td>8</td>
<td>11/15 (73.33%)</td>
<td>13/15 (86.67%)</td>
</tr>
<tr>
<td>9</td>
<td>15/15 (100%)</td>
<td>14/15 (93.33%)</td>
</tr>
<tr>
<td>10</td>
<td>11/15 (73.33%)</td>
<td>12/15 (80%)</td>
</tr>
<tr>
<td>11</td>
<td>14/15 (93.33%)</td>
<td>13/15 (86.67%)</td>
</tr>
<tr>
<td>12</td>
<td>13/15 (86.67%)</td>
<td>15/15 (100%)</td>
</tr>
</tbody>
</table>
4.2 Performance of memory retention

With respect to the research question two, the experimental group who is taught by conceptual metaphor awareness do not benefit their vocabulary memory retention (see Table 2). The experimental group obtains 87.77% correct rate. The control group scores 88.88%.

Table 2 The correct rate for taught phrasal verbs.

<table>
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</tr>
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<td>13/15 (86.67%)</td>
</tr>
<tr>
<td>12</td>
<td>13/15 (86.67%)</td>
<td>15/15 (100%)</td>
</tr>
<tr>
<td>average</td>
<td>88.88%</td>
<td>87.77%</td>
</tr>
</tbody>
</table>

CMA shows no positive effect on the memory retention test. From the participants’ self-report learning phrasal verbs experience, by memorization is the dominant “strategy” for phrasal verbs acquisition. That is, participants are used to learning phrasal verbs by memorizing English vocabulary along with the Chinese translation. For the control group, the strategy that they carry out is memorization because we only provide phrasal verbs in a sentence with the Chinese translation. As for the experimental group, they are instructed by the “innovative” teaching method that they feel strange about CMA method. The tasks that they work on not only realizing phrasal verbs but also applying new strategy to explain every phrasal verb. It seems that their learning burden is heavier than the control group who pays all the focus on memorization. Thus, it is not verified that the experimental group outperform the control group in vocabulary retention.

4.3 Performance of CS mechanisms application

As regards the unfamiliar phrasal verbs, the experimental group scores 71.1% comparing to 58.88% for the control group (see Table 3). The results suggested successful application of CMA to cope with untaught phrasal verbs. The experimental group does better on the test, which lies in CMA method as a beneficial strategy to infer and grasp the meanings of unfamiliar phrasal verbs. They have learned the polysemous concept of *up* and *off* and carried out the knowledge to interpret new phrasal verbs.
Table 3 The correct rate for unfamiliar phrasal verbs.

<table>
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<tbody>
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<td>10</td>
<td>11/15(73.33%)</td>
<td>12/15(80%)</td>
</tr>
<tr>
<td>average</td>
<td>58.88%</td>
<td>71.1%</td>
</tr>
</tbody>
</table>

However, although the result shows experimental group outperformed, learners’ self-reports question the teaching method. Three participants from the experimental group said the teaching method is very complicated because they don’t think they can grasp the phrasal verbs until they memorize all the metaphorical usages of *up* and *off*. Then, they said by CMA teaching burden their process. They think they have to spend extra time to familiar with conceptual metaphors and then go on the acquisition of phrasal verbs. Although researchers induct the conceptual metaphors empirically from languages, the participants do not believe the effect of conceptual metaphors naturally exist in their mind. The researchers account for this discrepancy due to participants’ insufficient sense of language and given seldom chance to practice thought and logic in the educational context. Most important of all, the intensity of metaphor awareness they received is insufficient. For example, according to their self-report on learning phrasal verbs experience, for both control and experimental group, they wrote down “by memorization”. They are never triggered the power of conceptual metaphors; thus they need more time to familiar with the system and more evidence to be persuaded. With respect to examples of more persuasive evidences will be elaborated in the discussion section by alternative teaching material.

5. Discussion

In this section, we discuss the effect of positive and negative L1 transfer on phrasal verbs learning. Then, the improvement of teaching material is suggested, which is motivated from participants’ self-report. Finally, pedagogical implications are proposed for educational context.

5.1 L1 transfer

It is suggested that learners’ ability to process and apply phrasal verbs are heavily influenced by their knowledge of their native languages (Side, 1990). Interlanguage interfere not only learners’ linguistic realization, but also conceptual transfer. The reason why question 8 (bring up) and 10 (break up) possessing the highest correct rate have something to do with L1 positive transfer; for example, Mandarin Chinese has
up for increasing or growing in Zhang jia, 漲價, ‘up price; price rises’, and wen du zeng gao, 温度增高, ‘temperature up; temperature increases’. Up conceptualizes as completion such as kao shang xue xiao, 考上學校, ‘examine up school; being admitted to a school’ and mai guang, 賣光, ‘sell up’. The Mandarin Chinese conceptual metaphors of off have similar concepts as English listed in the lecture and test sheet. The concept of distance in space is off such as li kai, 離開, ‘leave’, yuan li, 遠離, ‘away from’ The concept of disconnection is off such as dian lu zhong duan, 電路中斷, ‘electricity broke up; out of electricity supply’ qie duan wang lu, 切斷網路, ‘cut off the Internet’.

However, both the control and experimental group are native speakers of Mandarin Chinese, but why does the experimental group attain the benefits exclusively? Boers (2000), Kövecses & Szabó (1996) claim that people need to be triggered by the CS mechanisms before they can put them to use. That is, people who are not aware of the existence of CS mechanisms; they do not have deep understanding about CS mechanisms, not mention of application of CS mechanisms to the language process.

The negative L1 transfer also has some impact on the test sheet performance; that is the reason why question 4 (end up) get the lowest correct rate. Mandarin Chinese conceptualizes up for continuing and keeping doing such as shang gong, 上工, “up work; start to work”, shang zu liang xiao shi, 上足兩小時, “up fulfill two hours; work for two hours” instead of stopping in English. The preliminary finding we proposed it is more difficult for learners to apply conceptual metaphor awareness on those phrasal verbs which have conflicted interpretation to their native language.

5.2 Alternative teaching material

The rational of teaching material employed to the experimental group is to trigger their metaphorical awareness by providing conceptual metaphors, polysemy, and family resemblance that the phrasal verbs manifest. A few participants complain they require spending extra time to familiar with CS mechanisms and then work on the acquisition of phrasal verbs. However, if the teaching material, conceptual metaphor awareness, introduced by Chinese examples, would they believe conceptual metaphors do dwell in their mind? Since some equivalent conceptual metaphors are found in Chinese, the future study can explore the application of Chinese conceptual metaphors as triggers to English phrasal verbs.

5.3 Pedagogical implications

Even though three participants question the effect of conceptual metaphor, these three participants’ performance scores around the average rather than lay behind. The advantages of applying conceptual metaphor awareness into phrasal verbs learning in the language context are as follow. It provides a solution for learners to cope with
unfamiliar phrasal verbs. The reason that contributes this positive outcome is that learners process learning with logical and analytical strategies. Conceptual metaphor reveals the hidden relationship that operates behind phrasal verbs. In addition, conceptual metaphor offers an opportunity to categorize phrasal verbs. That is, learners do not learn individual phrasal verbs by context to context, but acquire a group of phrasal verbs in groups.

The importance of metaphor awareness is suggested from the researchers Boer 2000, Andreou & Galantamos 2008, who claim conceptual metaphor mechanism lies in people's deep mind and they are functioned covertly and subconsciously. Thus, the mechanisms are not triggered automatically, but need to be motivated. This is confirmed by the research question 3; the experimental group benefits from the metaphor awareness teaching. The curriculum design should pay much attention to motivating learners’ metaphor awareness so as to make learning meaningful and logical.

6. Conclusion

We address the positive effect of applying conceptual metaphor to teaching phrasal verbs by CS awareness method. The overall performance and metaphor awareness receive confirmations from the results. However, the memory retention offers no support by employing CS awareness teaching method. The present study suggests the possible effect of L1 transfer by comparing English and Mandarin Chinese conceptual metaphors. Moreover, it advises the improvement of motivating metaphor awareness by offering alternative teaching material based on participants’ suggestions and complaints. Most noticeably, the present study breaks through the constraint about learners’ age and language proficiency suggested by the previous studies (Boers, 2000; Andewou & Galantamos, 2008). It proves that adolescents with basic language proficiency will benefit from the application of CS to phrasal verbs learning.

There presents some limitations in the present study. First, conceptual metaphors remain “unsettle issue” (Li, 2004:199) as how to explain the mapping relationship of a certain expression. The explanation may be different from people to people. Thus, one teacher comes up with the conceptual metaphor for a particular expression; on the other hand, other teachers may have distinct interpretations for the same expression. Then, this unstable and various explication may confuse learners and burden their language process. Second, conceptual metaphor is not omnipotent to generalize to all phrasal verbs. Some phrasal verbs are cultural-specific which are shared by a particular cultural community. Thus, conceptual metaphor should be regarded as a complementary mean (Boers, 1999) instead of omnipotent method.

Although conceptual metaphor constitutes some insurmountable obstacles, there
are still many phrasal verbs deserved the interpretation of conceptual metaphor and analysis so as to assist phrasal verbs learning.

References


Appendix 1 The instruction for the control group.

1. My car broke up again- I will have to fix it.
   我的車又壞了，我必須修裡它。
2. These ten stories make up the whole book.
   這十篇故事組成一本書。
3. My brother’s room is dirty. He never picks up the garbage.
   我弟弟的房間很髒。他從來不撿垃圾。
4. Don’t eat up the food. You should leave some for others.
   不要把全部食物都吃光。你應該要留一些給其他人吃。
5. We blow up balloons to decorate our living room.
   我們吹氣球用來布置房間。
6. I want to give up the science test because I can’t understand it.
   我想要放棄自然考試，因為它實在太難了。
7. He calls off because he is sick.
   他打電話請假因為他生病了。
8. Our school is there. Let’s get off the bus.
   我們學校到了。我們下車吧。
9. I turned off the light and went to bed.
   我要關燈然後去睡。
10. Come and see me off at the airport.
    來機場送我離開。
11. We put off the trip until next summer.
    我們的旅行延期到下個暑假。
12. The area was fenced off due to the construction.
    因為施工的關係，這個區域用籬笆圍起來了。

Appendix 2 The instruction for the experiment group.

(1) The phrasal verbs for up

<table>
<thead>
<tr>
<th>INCREASING OR GROWING IS UP.</th>
<th>1. We blow up balloons to decorate our living room.</th>
</tr>
</thead>
<tbody>
<tr>
<td>up for increasing, growing</td>
<td>2. My brother’s room is dirty. He never picks up the garbage.</td>
</tr>
<tr>
<td></td>
<td>我弟弟的房間很髒。他從來不撿垃圾。</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPLETION OR FINISH IS UP.</th>
<th>1. My car broke up again- I will have to fix it.</th>
</tr>
</thead>
<tbody>
<tr>
<td>up for completion, being finish</td>
<td>2. These ten stories make up the whole book.</td>
</tr>
<tr>
<td></td>
<td>這十篇故事組成一本書。</td>
</tr>
</tbody>
</table>
Appendix 3 The performance sheet

1. Fifty students make ________ the class.
2. Because of the heavy rain, the plane took __________.
3. Our classroom is fenced __________. No one can approach it.
4. The movie is ended ______. Let’s go out.
5. The store is very busy today. We’re almost selling __________.
6. I call ________ for the work because I have something important to do.
7. My mother doesn’t allow me to use the phone, so I have been cut ________.
8. I was born and brought ________ here.
9. The building is blown ________ and will be built a new department store.
10. Jason has broken ________ with his girlfriend.
11. Let’s switch ________ the TV and go to bed early.
12. I saw John ________ at the train station.