The Analysis of EFL Reading Comprehension by the Results of the Experiments Based on Cognitive Linguistics —Categorization and Metaphor

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Abstract

This paper attempts to focus on the analysis of EFL reading comprehension by the results of the in-class experiments based on Cognitive Linguistics, which has the basis of several concepts from psychology and cognitive psychology in particular. One of the concepts articulated here is the gestalt school of thought: 'the whole is more than the sum of its parts,' the philosophy of which has been accepted and adapted by Cognitive Linguistics.

In this paper two main fields of Cognitive Linguistics—Categorization and Metaphor—are dealt with in this study to throw some light on EFL reading comprehension. The experimented aspects of each domain used to examine EFL characteristics of reading are background frames which have tried to look at each member in a category from the viewpoint of the 'perceived whole,' and metaphors such as conventionalized ones (they are often based on body-parts associated with a certain linguistic form) as well as interpersonal ones (they are based on the semantic relationship of projection in the expression of modality).

The results of the two experiments concerning frames and metaphors in the study show that EFL readers need to realize the category's communicative usefulness as well as the background frames not only on our universal experiences but on other cultures; and it is also significant for EFL readers, while reading, to comprehend the English metaphorical expressions by which they have sometimes experienced difficulty in getting to the right comprehension.
The Analysis of EFL Reading Comprehension by the Results of the Experiments

Based on Cognitive Linguistics — Categorization and Metaphor

KAMEYAMA Ko
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1. Introduction

Cognitive Linguistics has the basis of several concepts from psychology and cognitive psychology in particular, as it holds the standpoint that language is deeply related to human cognitive functions.

In 1912, a group of German psychologists – Max Wertheimer, Wolfgang Kohler, and Kurt Koffka – called their philosophy Gestalt (pattern), whose idea is that perception is global, not local; objects or features are perceived in relation to one another, in the end giving rise to the final holistic view which cannot be inferred from the individual components alone. The idea behind the gestalt school of thought that 'the whole is more than the sum of its parts' can give us one unit of concept which has its own function, not consisting of logical primitive factors that cannot be divided further. 'The whole is more than the sum of its parts' can be summarized as:

1. The whole organization can be perceived more easily than the partial organization.
2. The parts tend to be conceptualized by the inference of the whole.

By the idea of gestalt philosophy based on these two summaries, according to Greenfield (1995: 99), we do not make response to immediate local stimuli, but we tend to cause consequent behavior which is chosen as that which is seen as the most appropriate through immediate consideration of the whole situation of the stimulus and its significance.

In the world of semantics, we have had the notion that is called 'principle of compositionality', in which we are supposed to get to the meaning of a phrase or a sentence through the bottom-up manner; that is, each phrase or sentence is composed of the sequence of each single word, so we can understand the whole meaning of a phrase or a sentence if we have enough knowledge of each word. But in our real world, not all the phrases and all the sentences are composed of the literal meanings of the constituent words. Linguistic examples are as follows:
a. topless bar
b. dog in the manger
c. "Do you understand computers? It's all Greek to me."
   "That's the same boat. I'm just as confused as you are."

In the first example 'topless' we cannot obtain the meaning of the expression even though we
know the meaning of each word. We need the social knowledge of a 'bar' where women,
who are not wearing any clothes on the upper part of their bodies, so that their breasts are
bare, serve alcoholic drinks. To get to the meaning of the second example, we need to know
the idiomatic use of language 'dog in the manger' whose meaning is that someone who will
not let other people use or have something, even though they do not need it themselves
cannot be obtained through the meaning of the word 'dog' (a very common animal that
people keep as a pet or to guard a building) and 'manger' (a long open container that horses
and cattle eat from). If we try to understand the conceptualized meaning of the conversation
in the third example, we need to grasp the situation as well as the English way of expression.
That two persons are now experiencing the same unpleasant situation because they do not
understand computers well is the conceptualized meaning of this conversation, which means
that we are not required to know only the literal meanings of a word to get to the whole
picture of human conversation. It is obvious that we cannot explain the true meaning of the
three examples on the basis of 'principle of compositionality', so we have to focus on the
importance of that 'the whole is more than the sum of its parts', whose idea has been
accepted and adapted by cognitive linguists.

Besides these gestalt factors, there is the law called 'Pragnanzgesetz' which is that there is a
tendency to be better if conditions permit. This is the indication that we unconsciously tend
to aim at reconstructing the things in our mind into the forms which are more stable,
regular, symmetrical, if we perceive them and organize them cognitively.

Along with gestalt factors, we are here to examine the EFL reading comprehension on the
part of Japanese learners by the some results from cognitive linguistics: categorization and
metaphors.

2. Categorization
Categorization is an important issue, for it underlies the use of words and use of language in
general. The reason why categorization is important is that because we live in a lawful world
in which traits tend to hang together in the same way in many objects; we form categories which give us an advantage in reasoning about the world by letting us make good predictions about aspects of an object we have not seen before. Cognitive processes can play a significant role in producing and understanding language; categorization in our minds is going to occur to generate the categories that can be understood as mental concepts. So, one of the characteristics cognitive linguistics holds is that it has advocated the conception of prototype in considering categorization regarding various matters of language. From cognitive linguistic points of view, prototypes are said to be the right way to reach the nature of the mental representation, so that definitions may range from the more concrete notion of image to the more abstract representation of a category. Nowadays the conception of prototype has prevailed in the field of cognitive linguistics.

In the former days dated back to the ages of Aristotle, the classical approach to categories was mainly focused on. According to Taylor (1989: 23-24), the classical categories can be divided into four as follows:

a. Categories are defined in terms of a conjunction of necessary and sufficient features.
b. Features are binary.
c. Categories have clear boundaries.
d. All members of a category have equal status.

These definitions are based on the collection of semantic feature which is objectively clear-cut, and whether a member of a certain category or not is determined the appearance of semantic feature.

The most frequently used instance is the word 'bachelor', whose meaning is that a man who is not married. This word can be divided into basic features as follows:

\[ \text{Bachelor} = \{ \text{human} \} + \{ \text{adult} \} + \{ \text{male} \} + \{ \text{unmarried} \} \]

Therefore, if one of these featured members is lacking for the foundation of the word, the word 'bachelor' cannot be basically recognized as the proper 'bachelor'.

The classical approach to categories is said to have two advantages below:

1. By using features, the description of language structure can be realized efficiently.
2. The mutual relation between words/phrases can be clear.
The second advantage has the concrete examples as follows:
a. Different levels of categorization shown in Figure 1 are possible, where the very lowest level of categorization would be represented as individual instances rather than categories.
b. Predictions are possible in judging an appropriate connection between words. For example, we can predict whether the phrase 'infant wife' is possible or not.
c. Semantic predictions between sentences are possible. We can tell in the pair of sentences below that the second one is impossible.
   (1) John can't be a bachelor, because he's been married before.
   (2) John can't be a bachelor, but he's never been married before.

The classical approach to categorization has been challenged by the notion expressed in Figure 2, where we have to draw the line between the members of this category; which is in the category of 'cup' or 'bowl'. The boundary of the category is fuzzy the category is not structured in terms of shared criterial features articulated in the classical theory, but rather by a criss-crossing network of similarities. In short, we can find what more effectively influence our recognition of members of a category than the classical theory of categorization; that is, we can call it prototype effect where we see that some members share some attributes, but other members share other attributes, and where we recognize that there are no attributes common to all the members, and to them alone some members have practically nothing in common with others.

In the prototype theory, typicality conditions are used to be the criterion to measure the degree between the prototype and each member with the category. This concept has the supporting idea which is called 'family resemblances' in which the stress is placed on the notion that every member should not have similarities.

Words can express the levels of structure in a category. In short, we can see that there exists 'category hierarchy', in which we can observe in each level of category the appearance of the middle-class level that has prototype effect. The conception of this level of category is called 'basic level category', which is said to coin words by combining with other words. This notion has its properties according to Lakoff (1988: 133):
   a. It is the level at which category members have similarly perceived overall shapes.
Figure 1: Different Levels of Categorization

(Taylor, 1999, p. 47)
Figure 2: A Selection of the Drawings of Cup-Like Objects

(Urgerer and Schmid, 1996, p. 17)
b. It is the highest level at which a single mental image can reflect the entire category.

c. It is the highest level at which a person uses similar motor programs for interacting with category members.

d. It is the level at which subjects are fastest at identifying category members.

e. It is the level with the most commonly used labels for category members.

f. It is the level first named and understood by children.

g. It is the level to enter the lexicon of a language in the course of history.

h. It is the level with the shortest primary lexemes.

i. It is the level at which terms are used in neutral contexts.

j. It is the level at which most of our knowledge is organized.

k. It is the level at which most culturally-determined functions for objects are defined.

Prototype theory as the new perspective on categorization has risen; however, several questions about the theory have been noticed as studies have been going on. In the theory of categorization, what is needed is the description of the interior structures that can show the degree of difference between the members and the nonmembers in the light of prototype. And the must here is the explanation of context effect, which is the phenomenon to explain whether an object can be the member of a category or not must be decided by the context and other surroundings as well. To overcome these, there has been the notion that we can organize our knowledge by means of structures called 'idealized cognitive models (ICMs)', whose basis is on the hypotheses about the structures of knowledge frame, which has tried to look at each member in a category from the viewpoint of the idea of 'perceived whole'.

The term 'frame' refers to the knowledge network linking the multiple domains associated with a given linguistic form. Frames do not necessarily incorporate scientifically validated knowledge of the world; however, they are configurations of culture-based, conventionalized knowledge: the knowledge encapsulated in a frame is knowledge that is shared, or that is believed to be shared. For instance, as 'alligator shoes' are in general taken to be 'shoes made from alligator skin', there are few people who take the shoes to be 'shoes worn by alligators', 'shoes for walking on alligators' and 'shoes for wearing during the alligator time',
even though our grammatical competence will make each interpretation possible.

It is very significant to investigate how the background frame is related to reading comprehension on the part of EFL learners. The following experiment was done to see this.

2.1. EXPERIMENT 1: Frame

In this experiment we will find how EFL learners of female Japanese students understood background frames in sentences written in English.

2.1.1. Method

The data analyzed for this study are based on ten-minute written test (see APPENDIX 1) asking the background frames in five sentences, which was administered in one class period lasting fifty minutes.

2.1.2. Participants

A convenience sample of 130 second- and third-year high school EFL students studying at a private high school in Japan in the school-year of 2000 completed the test in May. There are 65 students in the second grade and 65 in the third, who are all girls and their ages ranged from 16 to 18. Ten classes for learning English a week are provided for the second-year students and eleven for the third. Among the students who took the test, most of them passed the pre-second STEP test (equivalent to the TOEFL scores ranging from 431 to 470 with the average of 450), second STEP (from 471 to 530 with the average of 500) and pre-first STEP (from 531 to 570 with the average of 550). Thus, according to the numbers of the classes composed of learning English and of the students who passed the STEP tests, they are in the reasonable amount of learning-English atmosphere and the participants' general English proficiency levels can be considered to be high beginning to high intermediate.

2.1.3. Procedures

In one class period, ten-minute test for reading comprehension to see the students' background frames was carried out. They were asked to write down what elements of frames are lying in each sentence.

2.2. Results and Discussion

As Table 1 indicates the results of the test asking the background frames, most of the students seem to have hit upon at least one element of the frame. We can take a look at each sentence to realize how the background frames are perceived by the students.
Table 1: The Results of Test (Frame) \hspace{1cm} N = 130

1. (1.52: average number of elements)
   a. Shakespeare is the author. \hspace{1cm} 91 (70.00%)
   b. The books by Shakespeare are there. \hspace{1cm} 75 (57.69%)
   c. His books are popular. \hspace{1cm} 20 (15.38%)
   d. His works are old. \hspace{1cm} 8 (6.15%)
   e. His works are literature. \hspace{1cm} 4 (3.08%)

2. (1.15)
   a. Politicians are negotiating. \hspace{1cm} 60 (46.15%)
   b. Two cities are the capitals. \hspace{1cm} 44 (33.85%)
   c. This is the relationship between US and JNP. \hspace{1cm} 43 (33.08%)
   d. They are communicating in English. \hspace{1cm} 3 (2.31%)

3. (0.88)
   a. A line is rising upwards gradually. \hspace{1cm} 91 (70.00%)
   b. People can make the line change. \hspace{1cm} 24 (18.46%)

4. (1.54)
   a. The restaurant itself is popular. \hspace{1cm} 83 (63.85%)
   b. The restaurant's name implies hamburgers. \hspace{1cm} 75 (57.69%)
   c. The name indicates the restaurant. \hspace{1cm} 32 (24.62%)
   d. Fast food tastes good. \hspace{1cm} 10 (7.69%)

5. (0.79)
   a. This is about dog's life. \hspace{1cm} 55 (42.31%)
   b. Dog implies human being. \hspace{1cm} 48 (36.92%)
The first sentence 'Shakespeare is on the top shelf' could be interpreted to mean that a portrait of Shakespeare is on the top shelf, that the file containing information about Shakespeare is on the top shelf, that Shakespeare's body is on the top shelf, or that the word 'Shakespeare' is on the top shelf; however, our background frame can give us the very realistic interpretation that the book(s) written by Shakespeare is/are on the top shelf. This sentence is rather easy to understand because the name 'Shakespeare' has been known to most of Japanese people, which we can tell by the number of the students (91) who say that 'Shakespeare is the author'; that is, this must have led the students to a clear picture of this sentence.

'Talks' are formal discussion intended to produce a new agreement or a change in policy, usually between different countries or employers and employees. About half the students obtained in the mind a clear situation where politicians both in Japan and the United States of America officially discussed something related to political matters — this may be because the words 'Washington' and 'Tokyo' are easy to recognize as the fact that two cities are the capitals of each country in which many politicians live and important political decisions are always made.

'Prices are climbing day by day' could have been somewhat monotonous expression, for 91 students (70%) out of 130 seem to have had a sort of chart in which the line is rising upwards gradually. The verb 'climb' is used for the description of a situation where we move or travel towards the top of something tall such as a tree or a mountain, often with some effort or difficulty. As Goldberg (1965: 27) pronounces, verbs, as well as nouns, involve frame-semantic meanings to show that their designation must include reference to a background frame rich with world and cultural knowledge. The background frame which the verb 'climb' holds is in most cases thought to be universal, so the students could capture frame-semantic knowledge to come to understand the picture mentally represented.

The word 'McDonald' is worldwide now; as food is very basic element for our life, it is very easy to structure semantic-frame. Our experiences are stored in the long-term memory in the form of the mental lexicon and then are to form the frame-system which influences our ability to understand the language related to it. The name of the restaurant is so popular that the students got to the semantic picture of this sentence 'McDonald is delicious'.

Different results concerning the fifth sentence from the previous four sentences can be
retrieved from the answers in Table 1. Sometimes the background frame is fairly simple, but at the same time a crucial point is made. If we dissect the sentence 'every dog has his day', we are going to come to the conclusion that every single word used in this sentence is very simple, but the whole meaning of this sentence is hard to understand especially for EFL readers. The comprehension of any linguistic expression, even the simplest or the most banal, requires the activation of our appropriate encyclopaedic knowledge. In comprehending the sentence, the students must have needed their background frames on 'dog' and 'day'. We could say that most of the students failed to catch the meaning of this sentence, even though they could have known the meaning of each word. As far as we know that this sentence is an old proverb which means that everyone has, at some point in their life, a period of time when they are successful or lucky. This is truly the culture-affected linguistic expression; in the end, most of the students were said not to reach the conceptualized meaning.

Obviously cognitive categories play a significant role within frames. Categories act for frames, because frames are not only designed in the format of categories and their interrelations, but are activated by the same categories. After several points in the discussion are made, as a result it is necessary to notice that EFL readers need to realize the category's communicative usefulness as well as the background frames not only on our universal experiences but also on other cultures.

3. Metaphor

Metaphor has been said to be a useful way to summarize our mental performances that lead us to understanding a sentence. In our daily communication, metaphor is used to capture the parsing process in language use. When we encounter others' ideas in language use, we gather our ideas to fill the hollow parts in contents.

The central sense of the word 'school' is an 'institution where we learn in groups' and its peripheral sense is a 'group of fish swimming together', which we can say that this is the process of metaphor whose basis is on perceived similarity. The process of metaphorization does not only apply to a given sense of a word like 'school' in the sense of 'a group of fish'. A whole conceptual domain such as the human body is used to structure another conceptual domain such as the shape of a mountain, which is recognized as the thought process that is called a 'conceptual metaphor'. Our understanding of abstract, conceptual domains such as reasoning and emotions is in particular affected by many conceptual metaphors, so that we can boil with anger, or make someone's blood boil. There are two ways in which a
conceptual metaphor can be productive: the words and fixed expressions of a language code; that is, as Lakoff (1987: 384) articulates, they can be used to express aspects of a given conceptual metaphor, and the words and fixed expressions of a language can elaborate the conceptual metaphor.

Metaphors are so powerful that they tend to strengthen natural cognitive processes which can help us to understand the complex issues in nature and science via simple and often concrete categories. This is to be summarized in the four points Ungerer and Schmid (1996: 152) are presenting as follows:

a. While popular theories about natural phenomena tend to rely on constitutive metaphors, scientific theorizing is primarily non-metaphorical, but may also make use of some metaphorical elements.

b. In politics, the explanatory function of metaphors is often subjected to the goal of manipulation, which means that metaphors are often primarily selected for their emotional effects.

c. Popular political thinking largely depends on constitutive metaphors, which are often consciously created and fostered by politicians and propagandists.

d. Political theorizing is also frequently based on constitutive metaphors, and since these metaphors may disguise important aspects of the issue that should have been considered, the effect may be negative and destructive.

They are said to have been supported by the entailments of metaphors.

According to Lakoff (1999: 170-171), they are as follows:

a. The Mind as Body System:
   1) Thoughts have a public, objective existence independent of any thinker.
   2) Thoughts correspond to things in the world.

b. Thoughts as Motion:
   3) Rational thought is direct, deliberate, and step-by-step.

c. Thoughts as Object Manipulation:
   4) Thinking is object manipulation.
   5) Thoughts are objective — they are universal.
6) Communication is sending.
7) The structure of a thought is the structure of an object.
8) Analyzing thoughts is taking apart objects

**d. Thoughts as Language:**
9) Thought has the properties of a language.
10) Thought is external and public.
11) The structure of thought is accurately representable as a linear sequence of written symbols of the sort that constitute a written language.
12) Every thought is expressible in language.

**e. Thought as Mathematical Calculation:**
13) Just as numbers can be represented by sequences of written symbols, so thoughts can adequately be represented by sequences of written symbols.
14) Just as mathematical calculation is mechanical, so thought is.
15) Just as there are systematic principles of mathematical calculation that work step-by-step, so there are systematic universal principles of reason that work step-by-step.
16) Just as numbers and mathematics are universal, so thoughts and reason are universal.

**f. The Mind as Machine:**
17) Each complex thought has a structure imposed by mechanically putting together simple thoughts in a regular, describable, step-by-step fashion.

There are important metaphors—orientational metaphors, ontological metaphors and container metaphors—which are related to spatial phenomena. In orientational metaphors, conceptions affect each other to form a conceptional system as a whole. The orientational metaphors have deeply related to the physical traits of human beings and our cultural experiences; as a result, the metaphors have the relationship with the spatial expressions such as 'up/down', 'in/out', 'on/off', 'deep/shallow' or 'central/peripheral'. The ontological metaphors have the basis of our experiences of physical entities and substances; in other words, the metaphors can be treated as 'things' which hold the notion that there cannot be clear border between each conception like emotions, thoughts, activities, events, and social phenomena. By the ontological metaphors we can recognize the meaning of the sentence 'Inflation is lowering our standard of living'. The container metaphors belonging to the
ontological metaphors make us realize that we can recognize ourselves as a physical existence from outside ourselves. This recognition makes it possible that we can conceptualize a situation and even visual field as a container, which surely leads us to understanding the conceptualized sentences as follow:

a. She's in love.

b. The ship is coming into view.

Personification can be explained by metaphorization, which is to observed in religions and fairy tales. Metaphorization can make us believe that various phenomena in our societies can be measured by 'human beings'.

It can be very important to investigate how understanding of metaphors is related to reading comprehension on the part of EFL learners. The following experiment was done to see this.

3. 1. EXPERIMENT 2: Metaphor

In this experiment we can find how EFL learners of female Japanese students understood metaphorical expressions in sentences written in English.

3. 1. 1. Method

The data analyzed for this study are based on ten-minute written test (see APPENDIX 2) asking how the students understood the metaphorical expressions that were used to convey the meaning to readers. This test was administered in one class period lasting fifty minutes.

3. 1. 2. Participants

The same convenience sample as in the 'EXPERIMENT 1' completed the test in May.

3. 1. 3. Procedures

In one class period, the test to see the students' knowledge of metaphorical expressions was carried out. The students were asked to complete it in ten minutes. The test was composed of two parts: conventionalized metaphors and interpersonal metaphors.

3. 2. Results and Discussion

Body-parts are often used in a multitude of metaphorical expressions that are pervasive in everyday language. Sometimes some metaphorical expressions based on body-parts are so frequently associated with a certain linguistic form that as a result, they are lexicalized (conventionalized). When a unit of linguistic form is conventionalized, the metaphorical

— 103 —
force of the word is not active any longer; the metaphor is going to be regarded as 'dead' semantic bleaching appears. Even though the head-of-department type is usually not recognized as being a metaphorical expression by language users whose mother tongue is English, EFL readers are often perplexed with the use of metaphorical expressions based on body-parts, which, in particular, are different from ones used in Japanese language. For example, as Table 2 summarizes the results of the section 1, the students could not understand the English metaphorical expressions using 'nose' and 'shoulder' in particular. The main reason can be that in Japanese there are less metaphorical expressions regarding these two body-parts than in English. Not only this, metaphorical expressions using these body-parts are not enough in Japanese, comparing with expressions based on 'mouth' and 'arm'.

Grammar accommodates metaphors of interpersonal kind in the expression of modality, which is a very common type of interpersonal metaphor, based on the semantic relationship of projection. In this type of metaphor, one's opinion concerning the probability is coded as a separate, projecting clause in a hypotactic clause complex. Modality refers to the area of meaning that lies between yes and no, which is said to have the four types as follows:

a. (probability)  *It cannot be true.*
b. (usuality)  *It'll change right here.*
c. (obligation)  *The roads should pay for themselves.*
d. (inclination)  *She won't go farther any more.*

The basic distinction between subjective and objective modality, and between the explicit and implicit variants is the 'orientation', which will determine how the four types are realized. Examples of the types and orientation combined are shown in Table 3.

As Table 2 summarizes the result of the second section of the test, the students were poor at understanding the semantic domains expressed in the sentences 'Mary will know' and 'Mary'll sit quite quiet'—the former belongs to 'subjective: implicit' and 'modalization: probability' and the latter to 'subjective: implicit' and 'modalization: usuality'. These semantic domains are very often expressed in projecting clauses.

It is very significant to comprehend the English system holding metaphors that are now the unmarked form of encoding for the particular types of language process. To understand interpersonal metaphors can be one of the keys to becoming a good EFL reader because of the fact that English is so centrifugally structured that the principal categories of modality
Table 2: The Results of Test (Metaphor)  \( N = 130 \)

1. (SS correct answers / number of correct answers)

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<td>10</td>
<td>72</td>
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<td>(55.85% )</td>
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Table 3: Modality — Examples of Type and Orientation Combined
(Source: Halliday, 1985, p. 358)

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<tr>
<th>Modality: Probability</th>
<th>Subjective: explicit</th>
<th>Subjective: implicit</th>
<th>Objective: implicit</th>
<th>Objective: explicit</th>
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<tbody>
<tr>
<td></td>
<td>I think [in my opinion] Mary knows</td>
<td>Mary'll know</td>
<td>Mary probably knows [in all probability]</td>
<td>it's likely that Mary knows [Mary is likely to]</td>
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<td><strong>Modalization:</strong></td>
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<tr>
<td></td>
<td>Fred'll sit quite quiet</td>
<td>Fred usually sits quite quiet</td>
<td>it's usual for Fred to sit quite quiet</td>
<td></td>
</tr>
<tr>
<td><strong>Subjective:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I want John to go</td>
<td>John should go</td>
<td>John's supposed to go</td>
<td>it's expected that John goes</td>
</tr>
<tr>
<td><strong>Objective:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jane'll help</td>
<td>Jane's keen to help</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Inclination:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(the subjectivity and the objectivity) are often taken into account.

4. Conclusion

We need to continue studies of EFL reading comprehension from cognitive linguistic points of view — Cognitive Linguistics not only deals in facts neurologically between the experiencer and the experienced in the brain but focuses on the relationship between human cognitive functions and language use, one of which is reading. Further studies are needed to look into how other aspects of categorization and metaphors.

NOTE


References


APPENDIX 1: Test Frame

Class ( ) Name ( )

次の各文の成立要素を言え。 (Write the background frames as many as possible.)

1. Shakespeare is on the top shelf.
   .
   .
   .

2. There were talks between Washington and Tokyo.
   .
   .
   .
   .

3. Prices are climbing day by day.
   .
   .
   .
   .

4. McDonald is delicious.
   .
   .
   .
   .

5. Every dog has his day.
   .
   .
   .
   .
APPENDIX 2: Test Metaphor

Class ( ) Name ( )

1. 使い方の合うものを選び、番号で答えよ。
(To find the best match from the box below)

1. head ( )
2. face ( )
3. eye ( )
4. mouth ( )
5. nose ( )
6. neck ( )
7. shoulder ( )
8. arm ( )
9. hands ( )

1. of a potato  2. of an aircraft  3. of department  4. of land
5. of a mountain  6. of a hole  7. of a bottle  8. of a chair
9. of a watch  10. of a building  11. of a flower  12. of a tool
13. of a needle  14. of a tree  15. of a tunnel  16. of a road
17. of a page  18. of a hurricane  19. of a shirt  20. of a speedmeter

2. 次の各文の観点(主観的/客観的)を答えよ。
(To point out category: subjective or objective)

1. I think Mary knows. ( )
2. Mary will know. ( )
3. Mary probably know. ( )
4. It's likely that Mary knows. ( )
5. Mary should go. ( )
6. Mary's supposed to go. ( )
7. I want Mary to go. ( )
8. It's expected that Mary goes. ( )
9. Mary'll sit quite quiet. ( )
10. Mary usually sits quite quiet. ( )