

Conundrums Approached from the Cognitive Perspective of “the Impartment and Inheritance of Connotation and Denotation”

Jin Qiu¹

¹School of Foreign Languages, Chongqing Jiaotong University, China

Correspondence: Jin Qiu, School of Foreign Languages, Chongqing Jiaotong University, Chongqing 400074, China. E-mail: effie_qiu@sina.com

Received: March 29, 2013 Accepted: April 22, 2013 Online Published: June 3, 2013

doi:10.5539/elt.v6n7p122 URL: <http://dx.doi.org/10.5539/elt.v6n7p122>

Abstract

The most distinctive feature of conundrum is the deliberate misinterpretation in the course of its application. The present paper attempts a new cognitive approach to the understanding of conundrums. Based on psychological laws of mankind, the conundrum begins with the questioner's leaving a certain linguistic item on purpose, which will definitely cause deliberate misinterpretation. The process of its understanding is the result of the replier's taking advantage of the impartment and inheritance of the connotation and denotation to disguisedly replace another concept.

Keywords: conundrums, the impartment and inheritance of connotation and denotation (IICD) approach, deliberate misinterpretation, disguised replacement of concept

1. The Conundrum and Its Features

The conundrum is an ambiguous question, a kind of word-play that people ask for fun, which is a combination of language features and mind-sets. All conundrums are unexceptionally composed of two parts: the first part is a question with a series of clues, which lead people to the stereotyped thought; the second part is the answer, to which people tumble at last. A Chinese scholar Wang (1996) defines conundrums as involving puns and other shrewd and witty questions. It is intentionally worded in a puzzling manner in order to be guessed, especially as a form of amusement. In order to have a clear understanding of the conundrum, let's look at the following examples:

1) What month do soldiers like least?

Key: March.

2) The farmers in this village used modern methods but harvested no apples this year? Why?

Key: They planted peach trees.

In example 1), the question seems to figure out soldiers' least favorite month of a year. It could be any month of a year so long as it holds water. However, this couldn't be the most appropriate answer to this conundrum as it cannot achieve any amusing effect. As a matter of fact, the key to this conundrum makes use of polysemy of the word “march”: it seems to refer to the third month of a year, but actually to the action of marching. In this example, the questioner intentionally creates the context in which it seems to have favorable answers which are actually undesirable. In example 2), the question presupposes that the farmers planted apple trees this year. If the replier accepts the presupposition, then he is misled to a mental trap.

The conundrum usually takes the form of a brief *wh*- question which is posed to be answered with an appropriate but amusing guess. The conundrum has its own features. First of all, it consists of a question and an answer. Dienhart (1998) labels the former “text₁” and the latter “text₂” respectively. The initial part is usually a shrewd and witty question with puns or not. Only people break through the stereotyped thought, can they arrive at the most appropriate solution. Secondly, the conundrum is not created to seek or provide information, but for fun-making and amusement. When people interpret a conundrum, they always work out the answer in a conventional way, which is maximum relevant to the question while the correct answer is the optimal one (Sperber & Wilson, 1995/2001). Therefore, the contrast of the maximum relevance and optimal relevance usually produces amusing effect. Last and also the most distinctive feature of the conundrum is that during the

production and the interpretation of conundrums, people usually undergo the psychological process of deliberate misinterpretation. From the perspective of the questioner, he will purposefully leave a certain linguistic item which will definitely cause deliberate misinterpretation, say, a punny expression or a trap of presupposition. In order to find a solution to the conundrum, the replier should not follow the conventional way of thinking, but to disguisedly replace another concept so as to achieve the striking contrast between the maximum relevance and optimal relevance.

2. Deliberate Misunderstanding

As He & Shen (2004) put it, deliberate misunderstanding is a special pragmatic strategy. In verbal interaction, S2 may deliberately choose the interpretation diverging from the S1's intended meaning so as to achieve certain communicative effects. Two categories of triggers can account for deliberate misinterpretation.

The first one is the minimal information provided by S1. According to the principle of informativeness, the speaker usually says as little as necessary to produce minimal linguistic information. Then it's the recipient's responsibility to enrich the informational content of the speaker's utterance. Therefore, in many cases, there are gaps between the speaker's linguistic information and the recipient's enriched information, or at least, they may not be totally coincident with each other. The recipient may misinterpret the speaker's minimized information by default or on purpose. In our present study of conundrum, the misinterpretation is caused on purpose (Shen, 2004). The following conundrums will illustrate how the minimized information triggers the deliberate misinterpretation in the part of the replier.

3) Jack decided to climb a 12-storey high building. But when he climbed six floors, he reached the top. What's the matter?

Key: He started climbing from the 6th floor.

4) When can you go as fast as a racing car?

Key: When you are in it.

In these two examples, the questioner obeys the principle of informativeness. In example 3), he purposefully leaves out the precondition that Jack started his climbing from the 6th floor and deliberately shifts our focus to Jack's reaching the top by climbing only six floors, thus leaving us a room for deliberate misinterpretation. Likewise, example 4) asks about the time and emphasizes the action of going, while purposefully omits the fact concerning space: when you are *in the car*, you can go as fast as it goes.

The second trigger is the indeterminacy of S1's conversational utterance. In deliberate misinterpretation, S2, on the basis of the principle of relevance, may infer S1's intended meaning. However, he opts for the alternative possible abstract meaning of the elements in S1's utterance to fulfill his purpose. So the nature of "indeterminacy" in S1's utterance may trigger the use of deliberate misinterpretation (ibid.). For instance, as for the English word "room", we have rooms for specific use, such as room for living (living room), room for reading (reading room) and the like. Meanwhile, we also have "room" for abstract use:

5) What's the largest room in the world?

Key: The room for improvement.

In this example, the word "room" together with the modifier refers to different functions of room(s), either in a concrete or abstract way. Based on the questioner's indeterminacy of his conversational utterance, the replier deliberately replaces the concrete concept of "room" (a part of a building) with the abstract concept of "room" (space), and finally arrives at the solution to this conundrum: the room for improvement is the largest room in the world.

3. Theoretical Framework

3.1 The IICD Approach

Why could the above two concepts be replaced in the conundrum? We hold that the IICD approach proposed by Xu (2008a, b, c) can provide us mental pictures for the understanding of conundrums.

For cognitive linguists, categorization is an important issue, because it is something that underlies the mental processes of language production and language comprehension. Generally speaking, categorization just refers to a mental process of classification and its products are commonly called cognitive categories (Ungerer & Schmid, 2001). In this sense, categorization and the generalization of stereotypical relations share at least one important common point: both of them involve the mental process of classification. According to Xu (2008a, b, c), classification, namely taxonomy, is fundamentally constructed on people's understanding of stereotypical

relations among objects and events. Consciously or unconsciously, people apply stereotypical relations to categorizing objects and events in the world into different conceptual systems. These taxonomic systems are the logical generalization of objects and events in the world.

As Xu (ibid.) classifies, type hierarchy structure consists of two types, that is, the taxonomic type hierarchy and the compositional type hierarchy. The former is the aggregate of kindred entities; while the latter is the aggregate of different parts or characteristics of an entity. These two types can respectively embody relations of proximity and/or similarity to some extent. Let's take a well-known category "flower" for example. In light of our encyclopedic knowledge, daisies, lilies, roses and the like are all members of "flower" category, which can be assorted into the taxonomic type hierarchy. In this small-scaled type hierarchy structure, the category "flower" is at the supertype hierarchy; while daisies, lilies and roses which can respectively be called as a kind of flowers stand at the subtype hierarchy. They are proximate in location within the scope of "flower" category. What's more important, all of them share the fundamental attributes of flowers, such as "being colorful", "producing seeds or fruits", and so forth. In this sense, they are similar to one another. This example presents us a vivid description of the taxonomic type hierarchy, which emphasizes more on the relation of similarity than proximity. In terms of the compositional type hierarchy, it is obvious that stamens, petals, receptacles, etc. are compositional parts of a flower, among which the prominent character is that they are adjacently distributed in a flower. Therefore, the compositional type hierarchy focuses more on the relation of proximity. Type hierarchy structure and the relations among different categories will shed new light on our understanding of the world.

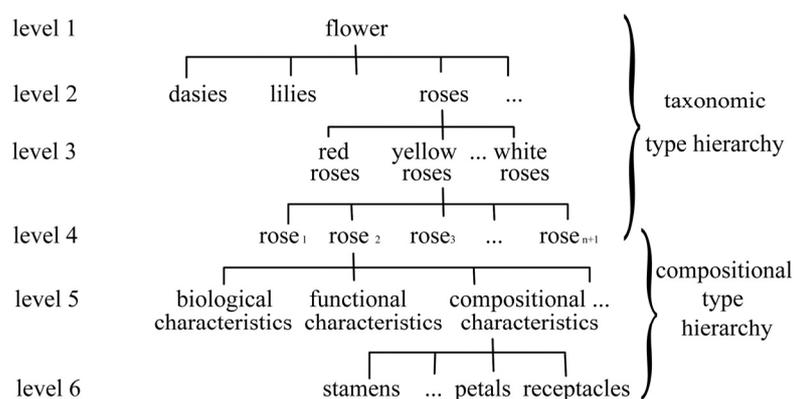


Figure 1. "Flower" type hierarchy structure

Connotation and denotation are two important terms concerning concept in logic. Connotation is the generalization of the fundamental attributes of a name while denotation refers to a set of objects bearing all these attributes and hence labeled with the name concerned. In order to illustrate their essence, let's take "flower" for example again. As the definition suggests, "flower" is the connotation of all kinds of flowers; meanwhile, each different kind of flowers is the denotation of "flower". To be specific, in figure 1, level 1 (flower) is the connotation of all the entities on level 2 and each kind of flowers on level 2 is the denotation of "flower". Like it or not, "rose" on level 2 is also the connotation of varieties of roses on level 3 and vice versa. As is shown in figure 1, the continuum of taxonomies from level 1 to level 4 (flower → rose → a certain kind of rose → one rose of this kind) represents the taxonomic type hierarchy. In this continuum, super-class type imparts its essential properties to its sub-class type and the entities in sub-class type inherit the basic properties from their super-class type. The sub-class type is the denotation of the super-class type. Therefore, Xu Shenghuan proposes (2008a, b) that the taxonomic type hierarchy reflects denotation. In other words, in the taxonomic type hierarchy, entities in sub-class type (denotation) inherit basic properties from the impartment of their super-class type (connotation). On the contrary, the compositional type hierarchy reflects connotation. As is already shown in figure 1, level 4 to level 6 reveal the compositional type hierarchy. On level 5, biological characteristics, functional characteristics, compositional characteristics and all the other characteristics are the connotative contents of any rose on level 4; stamens, petals and all the other parts of a rose on level 6 are also the connotative contents of the compositional characteristics of a rose. Each entity in sub-class type is an indispensable part of its super-class type, which embodies connotative contents of the super-class type. Therefore, the compositional type

hierarchy reflects the imparted and inherited relations of the connotation.

Generally speaking, logic of taxonomy is the foundation of our better understanding of the world. With the accumulation of our acquisition and experience, we have, consciously or unconsciously, formed type hierarchy structure of the world in mind, which can be categorized into two types, that is, the taxonomic type hierarchy and the compositional type hierarchy. The relations of proximity and/or similarity among genus-species, part-whole and part-part have made it possible to adopt the inherent relations of connotation and denotation to produce and interpret conundrums.

3.2 *The Law of Identity*

In effective communication, the communicators must conform some basic laws of logic (Note 1) so as to efficiently express themselves and make themselves understood. Among the laws of logic, from the viewpoint of formal logic, the fundamental one is the Law of Identity.

During the thinking and expressing process, the thoughts of the same entity must be identical. This law of being identical is referred to as “the Law of Identity”, which is expressed as “ $A=A$ ”. According to the Law of Identity, in the same process of thinking and expressing, the concepts and statements or judgments must be identical with themselves, and cannot be changed at random.

For formal logicians, logic is the art of conforming one’s thoughts to the Law of Identity. In different context, the same word or sentence may express different concepts or different propositions. If we only notice the similar linguistic forms and treat them as the same entity, but ignore the different concepts or propositions they expressed, we would violate the Law of Identity. If we violate the Law of Identity in concept, we will make the logical mistake of changing or confusing the concepts; if we violate the Law of Identity in judgments, we will commit the error of confounding the judgments or changing the topic. So from the standpoint of formal logic, speakers must confirm to the Law of Identity, and all these logic mistakes should be avoided.

Disguised replacement of concept serves as the logic basis of the understanding of conundrums. The same word or sentence should have definite connotation and denotation. The disguised replacement of concept in conundrums violates the Law of Identity in concept by taking different concept as the same one, so as to achieve amusing effect in the process of the conundrum understanding.

4. The Conundrum Processing

As is mentioned in the last section, disguised replacement of concept is the logic foundation of the conundrum understanding. In the type hierarchy structure, the subtype hierarchy (denotation) inherits the basic feature from the supertype hierarchy (connotation). However, in the process of the inheritance, the subtype hierarchy doesn’t inherit the basic feature from its corresponding supertype. The truth is that the concept in the supertype hierarchy, which is about to inherit its basic feature to its subtype was disguisedly replaced by another concept in the same hierarchy during the process of the inheritance. Thanks to this deliberate replacement, the solution to the conundrum can be deduced. Let’s look at an example to comprehend the detailed deduction of the answer to the conundrum.

6) What’s the left side of a pie?

Key: The side that is not eaten yet.

The most striking linguistic item in this conundrum is the word “left”, which is actually the word that will cause the deliberate misinterpretation. Upon our first thinking, the left side refers to the opposite of the right side. However, since the pie is round in shape, it cannot be distinguished from left to right. Therefore, we have to break through the conventional thinking to seek the answer. As is shown in the type hierarchy structure of figure 2, the word “left”, being the first level, embodies four subtypes, say, the past tense or past participle of leave, the adjective form, the adverb form and the noun form. Level 2 is the different parts of speech, while level 3 is the respective meanings of each part of speech. Based on our former discussion, the supertype is the connotation and the subtype is the denotation. Hereby, as is indicated in figure 2, the first arrow going up and down represents the impartment and the inheritance of the connotation and denotation. The meaning of the adjective form and the adjective form itself are replaceable. Arrow two going left and right indicates the replacement of the concept on the same hierarchy. This is the most important part of the conundrum understanding where the disguised replacement of concept occurs. Arrow three going up and down again refers to the impartment and inheritance of connotation and denotation.

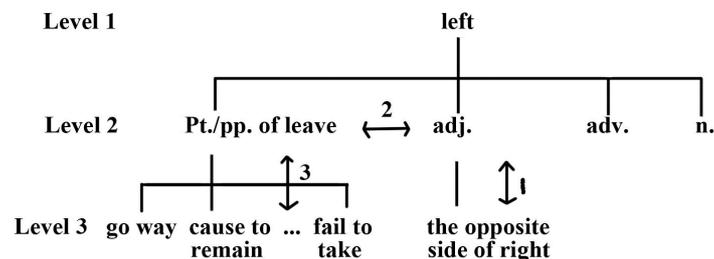


Figure 2. The hierarchy structure of “left”

The above depiction is our mental process of how the linguistic item of the conundrum is processed. Example 6) is a somewhat complicated conundrum processing. But example 7) is a simpler one.

7) What’s the half of 8?

Key: 0 or 3.

The Arabic number 8 is the supertype of “being a number” and “being a written form”. In the conventional way of thinking, half of 8 is of course 4. However, this answer cannot achieve the amusing effect of the conundrum. Therefore, on the same level of the hierarchy, the concept of “being a number” is replaced by another concept of “being a written form”. If 8 is divided horizontally, the answer is 0; whereas if 8 is divided vertically, the answer is 3.

5. Conclusion

Recently, studies of conundrums from the cognitive-pragmatic perspective have been touched upon. However, none of the scholars have succeeded in unfolding the mental pictures of the conundrum processing after the stereotyped thought has been broken through. The present paper attempts a new cognitive approach to the understanding of conundrums. Based on psychological laws of mankind, the conundrum begins with the questioner’s leaving a certain linguistic item on purpose, which will definitely cause deliberate misinterpretation. The process of its understanding is the result of the replier’s taking advantage of the impartment and inheritance of the connotation and denotation to disguisedly replace another concept.

References

- Dienhart, J. M. (1998). A linguistic look at riddles. *Journal of Pragmatics*, 31, 95-125. [http://dx.doi.org/10.1016/S0378-2166\(98\)00056-3](http://dx.doi.org/10.1016/S0378-2166(98)00056-3)
- He, Z. R., & Shen, Z. Q. (2004). Pragmatic analysis of deliberate misinterpretation. *Foreign Language Teaching and Research*, 36(3), 163-170.
- Shen, Z. Q. (2004). Deliberate misinterpretation as a pragmatic strategy in verbal communication. Doctoral Dissertation of Guangdong University of Foreign Studies.
- Sperber, D., & Wilson, D. (1995/2001). *Relevance: Communication and Cognition*. Oxford, England: Basil Blackwell; Beijing, China: Foreign Language Teaching and Research Press.
- Ungerer, F., & Schmid, H. J. (2001). *An introduction to cognitive linguistics*. Beijing, China: Foreign Language Teaching and Research Press.
- Wang, R. P. (1996). *Interesting Riddles*. Dalian, China: Dalian University of Technology Press.
- Xu, S. H. (2008a). Why metonymy is possible – “metonymy and logic”: interpreting metonymy by means of “impartment and inheritance of connotation and denotation”. *Journal of Shanghai Jiaotong University (Philosophy and Social Sciences)*, 59(1), 69-77.
- Xu, S. H. (2008b). Metonymy and the logic of taxonomy. *Foreign Language Teaching and Research*, 40(2), 93-99.
- Xu, S. H. (2008c). Cognitive approach to the study of rhetoric. *Journal of Xi an International Studies University*, 16(2), 1-5.

Notes

Note 1. Aristotle proposed three laws as basic to all valid thought: the Law of Identity, A is A; the Law of Contradiction, A cannot be both A and not A; and the Law of the Excluded Middle, A must be either A or not A.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).