ORIGINAL ARTICLE

A new approach to the study on counterexamples of generic sentences: From the perspective of interactive reference point-target relationship and re-categorization model

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Abstract: Based on deficiencies of existing researches, this paper, aiming at taking the tolerance of counterexamples reflecting seeming syntax-semantic mismatch in generic sentences, and the online cognitive process of these sentences into the same analyzing framework, proposes the Interactive Reference Point-target Relationship and Re-categorization Model (IRPR-RC Model) to give a unified explanation to the main types of counterexample-tolerating generic sentences (GS), thus further fulfilling the generalization commitment of cognitive linguistics. According to this model: 1) there is an interaction relationship between reference points and targets connecting generic words and attribute words in counterexample-tolerating generic sentences (GS); 2) this interactive relationship provides the premise for re-categorization, which selects a particular sub-category and makes it salient. This process can also be viewed as a phenomenon of attribute words coercing the generic words; 3) the model can be divided into three types: Focusing Type, Imbedding Type and Repulsing Type, according to different operation mechanism of IRPR-RC Model in counterexample-tolerating generic sentences (GS).

Keywords: interactive reference point-target relationship and re-categorization model; generic sentence; counterexample-tolerating

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1. Introduction

A Generic Sentence (GS) is a kind of special sentences that generalizes a kind of things rather than an individual with certain attributes or regular characteristics. Its subject-predicate structure is described as "S + P", in which "S" is the subject, which refers to the generic word, with conceptual connotation of categorization, usually used by bare nouns to express certain class of things; "P" refers to the generic attribute. GS is often reflected as "predicative", "verb" and "auxiliary verb". Such

as:

(1) a. Birds fly.

    b. Chinese speak Mandarin.

    c. Whales are mammals.

For "predicative", when we hear (1a), listeners ignore the fact that ostriches, penguins, and newborn birds cannot fly, while believe that the judgment of "birds fly" is correct (Carlson and Pelletier, 1995: 43). Compared with the generic words, the number of counterexamples cannot be determined in proportion.

The example of "verb" (1b) is similar to the former, which also implies the feature above. In China, due to regional, historical, educational and other reasons, some Chinese can only speak dialects, not Mandarin. However, listeners normally tolerate the counterexample and still regard GS (1b) as reality. In short, the tolerating of counterexamples happens when people use logical methods to carry out syllogism reasoning, the subject cannot always cover the whole category; while the users of GS default to the existence of counterexamples (Zhou, 2004; Xu, 2010a; Lei, 2019).

On the contrary, the "auxiliary verb" (1c) does not reflect the feature above. Since biologically, any type of whale is a mammal. That is to say, only some of generic sentences can tolerate counterexamples.

For the classification of GS, previous scholars mostly focused on the generic word. According to the description of the syntactic morphology of English generic words, Krifka (1987: 4–12) divided the generic sentences into "I-generic (indefinite)" and "D-generic (definite)" or "kind-referring sentence" and "characterizing sentence". Inspired by Lesile (2007), Prasada and Dillingham (2009) and Sandeep et al. (2013: 405) based on the relation between generic words and referential attributes, further divided GS into "minority characteristic generics", "majority characteristic generics" and "majority statistical generics".

However, different from the scholars' classifications above, Xu (2010a) observed the morph of generic sentences and the pragmatic effect of the feature "counterexamples-tolerating". Therefore, the generic sentence is divided into "law-like generic sentence", "implicit generic sentence" and "temporary generic sentence". Such as:

(2) a. xiàng chǐ fén shēn.

    Elephants are killed for ivories of good quality. (literal translation)

    b. *Everyone went home,* only Kim still working overtime.

The law-like generic sentence is a concise representation which involves law-like expressions of things. As mentioned above, both (1a) and (1b) tolerate counterexamples. For example, language users in (1a) assume that "birds fly" is a conventional judgment of birds' characteristics, but there are still counterexamples to this conventional fact.

"Implicit generic sentence" refers to the implicit use of generic sentences as presuppositions in metaphor, metonymy or idiom poetry. (2a) conveys and presupposes that "elephants are killed for

their valuable teeth"; and also "fén shēn" metaphorically expresses "being hunted", which indicates the tolerant of counterexamples. Not all elephants have valuable teeth, and those with short, broken teeth or even toothless will not be killed for ivories. Only those with high-quality ivories will be killed.

Using the feature "tolerating counterexamples", "temporary generic sentence" is an application of rhetoric to generalize a kind of temporary event/thing into a kind of expression of regularity or integrity (Xu, 2010a). For (2b), "*Everyone went home*" is identified as a class of event, whose generic attribute is "off duty"; while "Kim" who is still working overtime in the company is a salient counterexample with immediacy, thus reflecting a strong contrast.

In a word, the previous classifications of generic sentences mostly focused on the characteristics of generic words, without the attributes. Therefore, they did not pay much attention to the phenomenon of "tolerance of counterexamples". Instead, Xu (2010a) took account of this phenomenon. Since this paper aims to take the cognitive process of generic sentences and the tolerance of counterexamples into a unified framework, it focuses on these three types of generic sentences classified by Xu (2010a). Drawing on the results and reflecting on deficiencies from previous studies, this paper constructs an Interactive Reference Point-target Relationship and Re-categorization Model (IRPR-RC Model) to explain the cognitive motivation of counterexamples in the formation of three types' counterexample-tolerating generic sentences (GS) above.

2. Previous studies

As discussed above, one of the most important features of GS is the tolerating of counterexamples. And it is also the research focus in the study of GS, which has led many scholars to analyze the motivation of this phenomenon from the cognitive perspective.

1) The Categorization View. It holds that the tolerance of counterexamples in GS is that people focus on the whole of some particular category, while neglects other members. Eckardt (1999) proposed that "*GS is the statement about the prototype of category*". Based on this view, some scholars (Xu, 2010a; Li, 2013; Alexander and Frank, 2019), starting from the perspective of pragmatic features and philosophical concepts, studied the prototypical category. They further pointed out that conceptualizer excludes the marginal members in the category referred by generic words and focuses on the overall properties to express the general attributes or features, which leads to the tolerance of counterexamples in GS. Since human focuses on the whole category of the "class" and ignores the counterexample in the category, this kind of general expression is generated (Xu, 2010b).

In addition, that the category is focused as a whole and some counterexamples in the category are neglected indicates that the boundaries of categories are fuzzy and the classification of GS is based on the overall properties of the category rather than the sufficient conditions of each feature (Li, 2012). In other words, the counterexample can be tolerated for this bottom-up categorization process and particular pragmatic needs. This indirectly proves Xu's (2010a) view that the pattern, by which human recognizes things in terms of classes, provides possibilities of tolerating counterexamples in GS. Besides, Li (2013) pointed out that via a series of strategic choices of categorization in the linguistic thinking stage, the conceptualizer transforms the "event" into the "usage event", thereby the counterexample-tolerating GS is formed.

2) Holistic View. This mainly focuses on the overall generation of GS and the pragmatic features to explore the tolerance of counterexamples. Liu (2010), Bu (2012) and Li (2013), borrowing from the Generative Holism in philosophy (part is the embodiment of the whole), pointed out that the semantics of the subject in GS is generated by the whole. In this generating process, human selects restricted model(s) from the potential models provided by the whole within the context of SP. And the selecting process from the whole does not necessarily require the selected model bearing the most important, typical, and obvious features of the category, but this model must serve specific pragmatic purpose (Liao, 2010). Wei (2012) further pointed out that pragmatic purpose can be reflected as pragmatic presupposition, which brings about the generic range of GS that changes with the context, for that people can tolerate the "overgeneralization" of GS.

The overall concept that GS refers to is dominating in information processing, which can be easily solidified in people's cognition. Therefore, the referred concepts are reinforced, and exceptions are ignored (Xu, 2010a; Sun and Cheng, 2013). Focusing on the cognitive operation in the comprehension of GS, the holistic view revels that the GS can tolerate counterexamples while be judged to be true, for the comprehension of subject is constrained by GS as a whole in generation process.

3) The Metonymic View. Centering around the mirroring relationship between "class" and "example", Metonymic View explores the causes of counterexample tolerating in GS. Zou and Zhang (2011) pointed out that the existence of counterexamples is the result of metonymy by replacing essence with highly inductive attribute. In the framework of Idealized Cognitive Model (ICM), Fu (2010) and Gao (2013) proposed that counterexample-tolerating GS is generated by metonymic mechanism and prototype effect, whose truth-value is judged under certain ICM rather than reality. Counterexamples can be accepted within a reasonable range when the activated matrix domain and the category hierarchy used for subject-predicate items in ICM are reasonable (Fu, 2017). Relying on metonym, human experiences, cognizes and generalizes some features in the category referred by the subject, leading to tolerance of counterexamples in GS (Lei, 2019).

4) The Error-tolerance View. It mainly focuses on quantitative expressions to analyze the tolerance of counterexamples in GS. The truth condition for the existence of counterexamples in GS should be the existential quantification, i.e., the existence of an individual X, which belongs to the general attribute P and has the attribute P1 (Krifka, 1987; Wu, 2010). According to some scholars, the quantification process of tolerating counterexamples is either the result of the application of default rule in logic (Krifka, 1987) or the result of pragmatic reasoning in the use of language based on error-tolerance mechanisms and "overgeneralization" (Wu, 2010; Wu and Wei 2012).

Related studies have focused on GS from macro to micro, deepening our understanding of the tolerance of counterexamples, but the following shortcomings still remain: 1) explaining the formation of GS and the counterexample-tolerating in isolation leads to the incompatibility of these two kinds of explanations to each other. Fu (2017: 137) expressed her concern about this analysis method: "*Although the pragmatic study of GS can explain the tolerance of counterexamples in a certain extent, it is difficult to explain the syntactic-semantic features of GS by only referring to the dynamic context for pragmatic analysis.*" This paper argues that the tolerance of counterexamples in GS is formed in the cognitive process of its expression. So the study of the construction and the counterexample of GS should be carried out in a same framework. 2) The relevant studies mainly focus on one type of counterexample-tolerating GS, and the relevant explanations cannot be applied to other

types of GS. This violates the generalization commitment of cognitive linguistics that different dimensions of language share specific and universal foundational organizing principles. If there is no unified explanation for the series of syntactic phenomena (for example, counterexample-tolerating GS), how can we explain the cognitive mechanisms shared by different dimensions of human language? The GS is an organic whole, which should be described and explained in a unified framework. These two shortcomings constitute the starting point of this paper.

3. Theoretical foundation

Based on the deficiencies of previous studies, the following part further analyzes the constructing process and the tolerance of counterexamples of GS. As mentioned in the introduction, the structure of generic sentences is described as "S + P", in which generic attribute "P" refers to certain characteristics of generic word "S". So "P" and "S" is closely related, and "P" can be activated by "S", from which we can see that the formation of generic sentences conforms to cognitive reference point relationship. Except that, the tolerance of counterexamples in generic sentences involves two categories of "S", one of which has the attribute of "P", while the other doesn't. For example, the sentence "Peacock has beautiful feathers" involves two categories of "peacock", one of which is the category of "beautiful feathers", while another is the category "without beautiful feathers". Therefore, categorization is the cognitive mechanism that concerns the constructing process of generic sentences. Based on this, this paper unfolds the discussion on the theoretical basis of cognitive reference point relationship and categorization.

3.1. Cognitive reference point relationship

"Cognitive Reference Point" was first proposed by Rosch (1975) in his research of prototypical category, further discussed and elaborated by Langacker (2008: 84).

According to Langacker (2008), the operation of cognitive reference point model in **Figure 1** can be divided in two phases: 1) since entities have different prominence levels, the relatively prominent entities are focused by conceptualizer as the reference point, through which conceptualizer establishes "mental contact" with other entities. After the reference point is invoked and becomes the focus of conceptualizer, it provides access to its dominion that contains all of its potential targets, and refers to one of the targets in the dominion; 2) as focus shifts to the target, the original reference point fades into background, and the target can activate its own dominion and then may be invoked
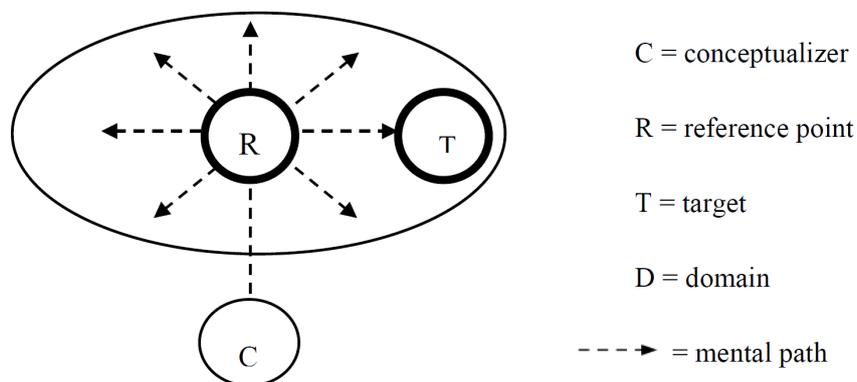

C = conceptualizer

R = reference point

T = target

D = domain

- - - ▶ = mental path

Figure 1.   Cognitive Reference Point Model (Langacker, 2008: 84).

as the reference point to continue to reach another target. In a word, the mental path, through which the reference point refers to the specific target, is consciously and subjectively constructed by conceptualizer according to communicative purpose (Wei, 2008: 96).

3.2. Categorization

According to Jackendoff (1985: 77), "*an essential aspect of cognition is the ability to categorize: to judge that a particular thing is or is not an instance of a particular category.*" The word category comes from Greek and refers to predicates in propositions expressing judgments. Aristotle systematically studied and sorted the category system for the first time in *Organon • Category* (Wen and Jiang, 2001). Categorization is the basis for the construction of categories and the mental process by which human beings classify things (Ungerer and Schmid, 2005). Except that, "*the mechanism of categorization must be assigned to the level of conceptual structure, where all these types of information are available. In short, a categorization judgment is the outcome of the juxtaposition of two conceptual structures* (Jackendoff, 1985: 78)." Specifically, categorization is a mental process of categorizing external things based on subjective and objective interaction, and a rational activity that endows the world with structure based on the subjective concept and classification of objective things (Wang, 2001). The outcome of categorization is what we usually call concept, and language reflects the categorized conceptual structure of the external world (Geeraerts, 1997).

Therefore, based on cognitive reference point relationship and categorization, the motivation of IRPR-RC Model is further discussed in the following part, which tentatively explains the cognitive process and tolerance of counterexamples of GS.

4. Cognitive motivation of IRPR-RC Model

4.1. Interactive reference point relationship

This paper argues that it is interactive reference point relationship rather than reference point relationship mentioned above that can be used to explain the tolerance of counterexamples in generic sentences. The cognitive reference point relationship is a universal cognitive mechanism, which not only exists in language expression, but also in vision. For instance, Langacker (1991: 170) once used "night-time sky" to describe the relationship of visual reference point relationship, i.e., conceptualizer usually locates the position of other stars by taking bright and salient stars as the reference point, which applies the universal cognitive mechanism of visual reference point relationship. Wang (2002) believes that such visual reference point relationship is also common in daily life. For example, to find a place on the map, it is often necessary to find a large and famous place and use it as a reference point to localize other places. Whereas, our visual cognitive mechanism not only exists in the process of reference point pointing target, but also in target pointing back to reference point. For example, in order to remember the position of W, O, R and K when typing "work" on the keyboard, unfamiliar with the keyboard, beginners usually first take Q as the reference point and move their eyes to W, and then take W as a new reference point, moving their eyes from W back to Q to re-locate W.

Just as the visual cognitive reference point relationship is reflected in language, the visual interaction reference point relationship also exists in language. Langacker (1993: 16) believed that there was a "potential interaction" between the reference point and the target.
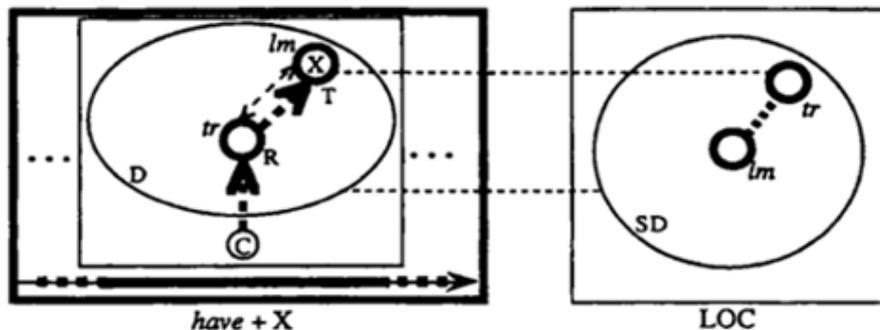
Figure 2. "*have* + X" Reference Point Relationship Model (Langacker, 1993: 16).

According to **Figure 2**, since the target in the possessive domain is equal to the trajector in the searching domain (Langacker, 1993), so "skunks" and "we" in (3a) can realize the potential inter-action between trajector and landmark, which is the potential interaction between the cognitive ref-erence point and the target. Besides, Langacker (2008: 79) also mentioned the conceptual anaphora in time dimension. In (4a), "quit my job" and "got married" are successively focused as reference point to refer to next target. But in (4b), due to the existence of "in reverse order", the original ref-erence point relationship similar to (4a) is reversed. Starting from the last target "quit my job", the target refers back to the reference point one by one in the mental scanning process of the conceptu-alizer, forming the interactive relationship between reference point and target.

Other than that, Langacker (2008: 84) pointed out that in (5a), "*the reference point is the surgeon, and his wife is the target*". Conceptualizer first directs the attention to the reference point "the sur-geon" for specific purpose of locating the target "his wife". Since "*it is no accident that the target 'his wife', contains a possessor pronoun referring back to the reference point*", thus the interaction between reference point and target is formed.

(3) a. We have a lot of skunks around here. (Langacker, 1993: 16)

(4) a. I quit my job, got married, and had a baby. (Langacker, 2008: 79)

   b. I had a baby, got married, and quit my job—in reverse order, of course. (Langacker, 2008:79)

(5) a. Do you remember that surgeon we met at the party? His wife just filed for divorce. (Lan-gacker, 2008: 84)

Moreover, the extension of the usage of reference point and its interactive relationship is a com-mon phenomenon in Chinese (Liu, Qu, Chen, et al, 2021; Liu, Luo and Wu, 2021). Thus, interactive reference point relationship exists in language. This paper holds that the interactive relationship between the target P and the reference point S provides premise for re-categorization in generic sen-tences, which is discussed as follows.

4.2. Re-categorization

The interaction reference point relationship mentioned above provides premise for re-categoriza-tion. Liu and Li (2005) pointed out that in translation, a category in one language would not exactly correspond to that in another language because of different categories dimensions, so there would

be a phenomenon of crossing correspondence among different languages, which leads to re-categorization. However, it not only exists in the interaction among different languages, but also in the expression of same language. The members in one category need to be reclassified under specific circumstances (Wang, 2015). In generic sentence, the generic word S is first invoked as a reference point by conceptualizer in relevant dominion and then refers to the target P, which is the generic attribute. After P is invoked and focused as the target, it becomes a new reference point referring back to S, which forms the interactive reference point relationship, and the purpose of this anaphora is to achieve re-categorization. In the process of re-categorization, based on the characteristics of generic attribute, the conceptualizer selects a particular member of generic word's category, which usually is a sub-category of S. As an entity of S's actual reference, it contains the features of generic attribute, so the tolerance of counterexamples in generic sentences is formed. In conclusion, the interaction between the reference point and the target is the premise of re-categorization, and re-categorization is the source of tolerating counterexamples.

Based on the analysis above, this paper constructs an IRPR-RC Model to give a unified explanation to the main types of counterexample-tolerating GS listed by Xu (2010a). As shown in Figure 3, in generic sentences, the reference point in this model is generic word S, and the target is generic attribute P. The interaction between the reference point and the target provides premise for re-categorization, which forms the subcategory that conforms to the features of attribute word. In all, this model can be used to explain not only the construction process of counterexample-tolerating GS, but also the motivation behind the tolerance of counterexample in generic sentence.

5. Explanatory power of the IRPR-RC Model

The previous section discussed the motivation of the IRPR-RC Model. Now based on this model and its operation, this section offers a unified explanation to the construction of these three types of counterexample-tolerating GS classified by Xu (2010a), to further verify the explanatory power of the model.

The IRPR-RC Model can uniformly explain the main types of counterexample-tolerating GS. As shown in Figure 3, the model operates in three stages. 1) Conceptualizer uses a generic word as a
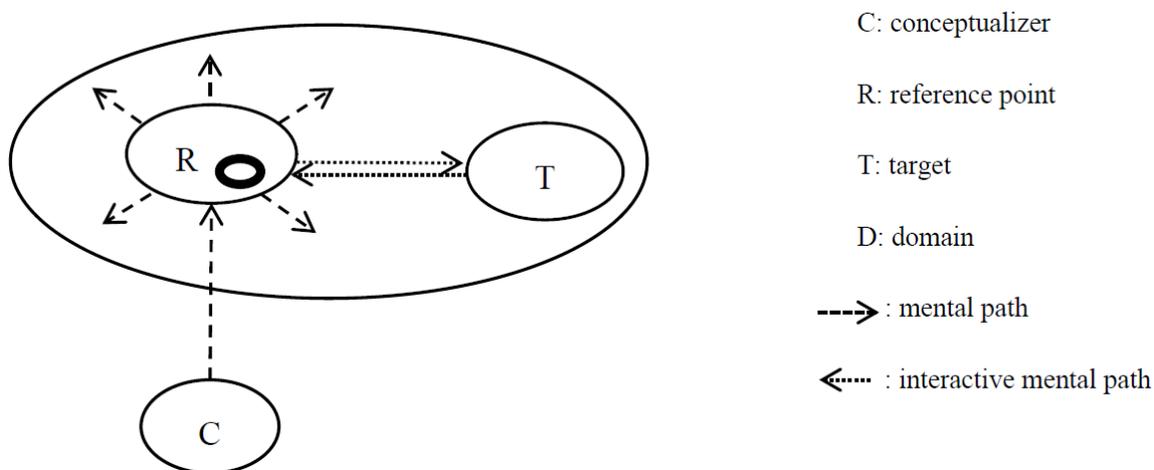

C: conceptualizer

R: reference point

T: target

D: domain

---> : mental path

<----- : interactive mental path

Figure 3. Interactive Reference Point-target Relationship and Re-categorization Model.

cognitive reference point, activating its cognitive dominion. For the communicative purposes, the conceptualizer mentally scans to the target (attribute P) via the reference point. 2) The target becomes salient as a new cognitive reference point, which refers back to the previous reference point (new target). The interaction between the reference point and the target is realized in this stage, which provides the premise for the re-categorization. Choosing one subcategory of the generic word and making it salient can also be viewed as attribute word coercing generic word, which is consistent with the process of lexical coercion (Wang, 2009). 3) The conceptualizer re-categorizes the new target (generic word). Thus, the generic word is divided into subcategory or subcategories that conform to the attribute of the generic word. A particular subcategory is the foreground in the expression, and the rest parts fade into background, thus forming the tolerance of counterexamples. Meanwhile, the counterexample-tolerating GS is constructed.

Based on the different operation characteristics of IRPR-RC Model in the different types of GS, the Model can be classified into three sub-types: Focusing Type, Imbedding Type and Repulsing Type. Relying on these sub-types of the model, this paper explains the main types of counterexample-tolerating GS one by one.

5.1. The explanation of law-like GS

The IRPR-RC Model in this type of GS is the Focusing Type, the characteristic of which is that after the target points back to the reference point (generic word), some members are brought into the focus of the attention, forming the foreground part of generic word, and becoming the word's subcategory bearing the features of the original target (attribute word's profile).

The operation of the model can be divided into three stages: in the first stage, the conceptualizer views the generic word as a cognitive reference point, activating its relevant cognitive dominion and scans to the target (attribute word's profile) in the dominion. In the second stage, when the target is salient, it becomes the new reference point pointing back to the generic word, which becomes salient again, establishing the interaction between the reference point and the target. In the third stage, the conceptualizer re-categorizes the generic word, picking a subcategory out of the category of generic word. And this subcategory bears characteristics expressed by the attribute word, and plays the role of foreground, while the rest part of the generic word's category fades into background, which produces the tolerance of counterexamples.

(1a) is explained as an example of the operation process of IRPR-RC Model in law-like GS via **Figure 4.** In (1a), the conceptualizer takes "Birds" as a reference point to activate its cognitive dominion. And the conceptualizer mentally scans to the target that can facilitate communication, i.e., "can fly", which then becomes the new reference point, and refers back to the generic word "Birds", which becomes salient again. Finally, the conceptualizer re-categorizes the category of "bird" by selecting a subcategory "the birds that can fly". This subcategory of the "bird" reflects the feature of the original target (attribute word's profile), and it is the foreground concept (as shown in bold ellipse) according to conceptualizer's construal. Thus, in this three-stage online cognitive process, this type of GS is constructed and the counterexample tolerance is formed.

5.2. The explanation of invisible GS

The IRPR-RC Model in this type of GS is the Imbedding Type, in which the re-categorization involves the imbedding of three categories.
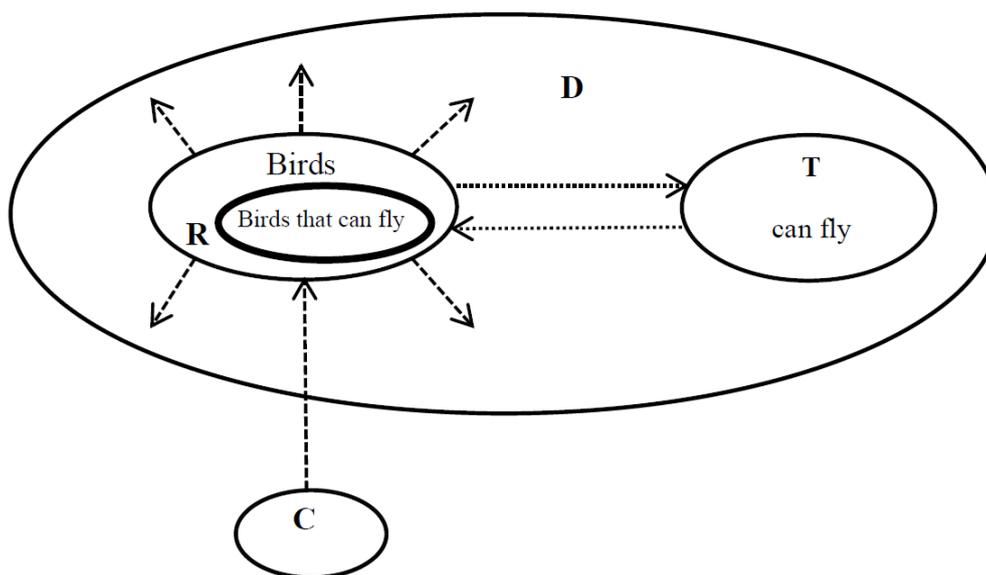
Figure 4. Focusing Type with *Birds fly* as an example.

This model operates as follows: first, with a generic word as the cognitive reference point, the conceptualizer activates its relevant cognitive dominion and mentally scans to target1, which is usually expressed directly. Afterwards, based on communicative purposes, target1 serves as a new reference point, pointing to target2, which is indirectly expressed. Next, as the new reference point, target2 in turn refers back to the generic word, forming the interaction between reference points and targets, which provides premise for re-categorization. Lastly, conceptualizer re-categorizes the generic word, in whose process, the conceptualizer divides the category of the generic word into two sub-categories: one category with target1's features and another with target2's features. This leads to a successively imbedded categories: the category to which the generic word refers, contains the subcategory with the feature of target1, which in turn contains the subcategory with the feature of target2.

Based on **Figure 5**, taking (2a) as an example, this section explains the operation of IRPR-RC Model in invisible GS. For certain communicative purposes, conceptualizer chooses "Elephants" as a reference point to activate its relevant cognitive dominion; meanwhile, conceptualizer mentally scans to target1 "ivories" which facilitates communication. Then target1 becomes a new reference point pointing to target2 "be killed for ivories of good quality" ("be killed" means "be haunted", and the whole sentence means that the elephants are killed because of their ivories, implying that only elephants with high-quality ivories will be killed. Elephants with broken tusks, or with newly grown ivories, etc., will not be killed for that reason, so target2 is expressed indirectly). Then target2 points back to the generic word "Elephants", which becomes salient again, forming the interaction between reference points and targets. Thus, based on target1 and target2, conceptualizer re-categorizes the category of "elephant" into two subcategories: the one with ivories and another with high-quality ivories. The "elephant" category includes elephants with ivories, and the latter includes elephants with high-quality ivories. This constitutes imbedding relationships in which the category "with high-quality ivories" is presented as foreground (as shown in bold ellipse in Figure 5), and with the other categories in the background, this leads to tolerating of counterexamples.
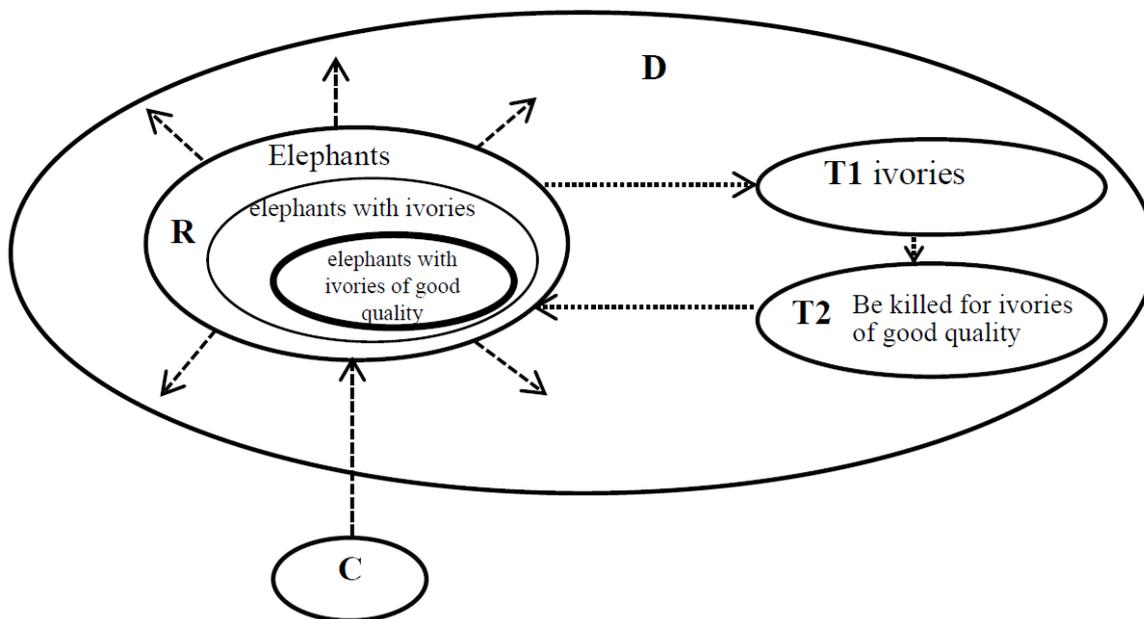
Figure 5. Embedding Type with *xiàng chǐ fén shēn* as an example.

5.3. The explanation of temporary GS

In the temporary GS, the IRPR-RC Model is the Repulsing Type, and the target2 is the salient counterexample. In this model, the category expressed by generic word is foreground concept, with a subcategory corresponding to target2 repulsed.

The operation mechanism of this type of model is similar to that of the Imbedding Model, with the main differences in the re-categorization stage. In this stage, the conceptualizer chooses the corresponding subcategory of target2, which is repulsed, as background concept, from the category of the generic word, with the remaining category content of the generic word construed as foreground concept, serving communicative purpose.

Taking (2b) as an example, the online cognitive process of it is shown in **Figure 6**. The operation is similar to that of Figure 5, but there are differences in re-categorization. At this stage, the conceptualizer re-categorizes the category referred by the generic word, selecting a subcategory corresponding to target2 "Kim working". This subcategory (marked by × as shown with dotted line ellipse in Figure 6) is repulsed from the category of the generic word. And the remaining category of the generic word is construed as foreground concept (as shown with the bold ellipse in Figure 6, and marked with √), with the subcategory construed as background for communicative purpose.

6. Conclusion

Why some Generic Sentences can tolerate counterexamples in contradictory relations? This question puts forward a challenging question for linguistics. The answer to the question is crucial for recognizing and characterizing the features and properties of things and making conventional statements of things (Xu, 2010b).

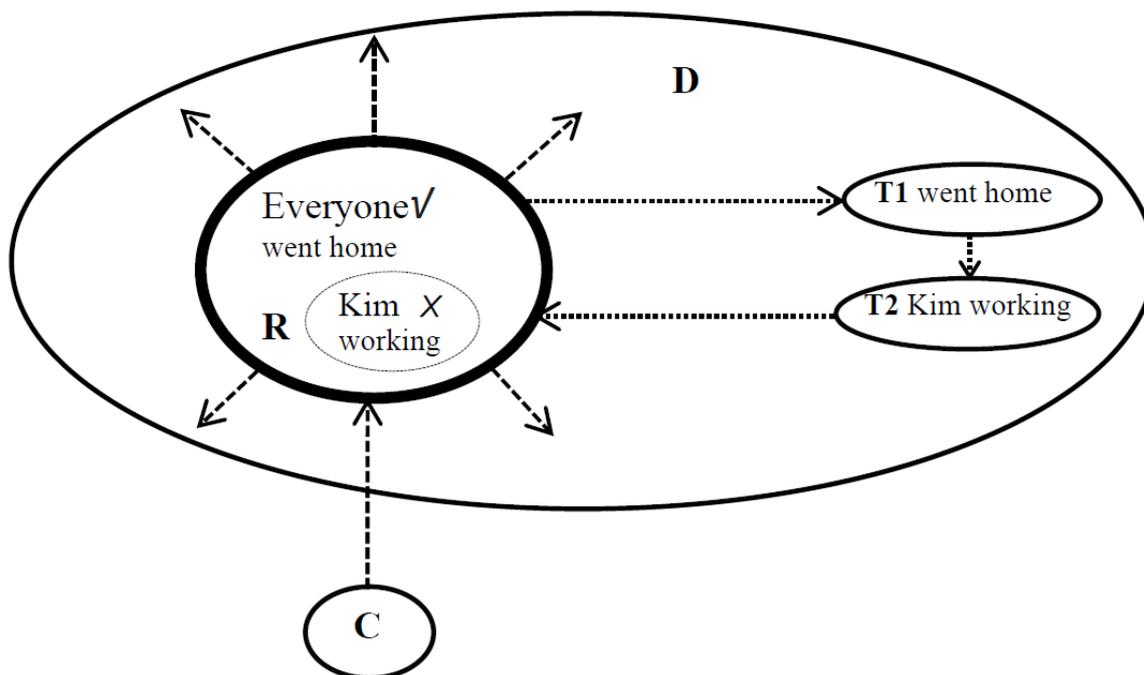This paper constructed the IRPR-RC Model and claimed that the reason why some Generic Sen-

Figure 6. Repulsing Type with *Everyone went home, only Kim still working overtime* as an example.

tences can tolerate counterexamples lies in the interaction between reference point and target and re-categorization based on the interaction, which is also the online cognitive process of these Generic Sentences. And different types of Generic Sentences tolerating counterexamples reflect different types of IRPR-RC Model. The operation mechanism of these types of IRPR-RC Model offers the answer to Li's (2013: 6) question: "*What exactly cognitive mechanism works in Generic Sentences?*"

There are two trends in current researches related to Generic Sentences. 1) Analyzing the construction of generic sentences and the motivation behind its tolerance of counterexamples, but in isolated ways; the formation of Generic Sentences and the tolerating of counterexamples are studied separately. 2) Different types of Generic Sentences are analyzed respectively, and the explanations related to one or several types of generic sentences cannot be applied to other types. For the first trend, this paper argues that the motivation behind tolerating counterexamples must exist in the online cognitive process of Generic Sentences, it cannot exist in the pantheon outside that process. Therefore, this paper explains the online cognitive process of Generic Sentences and the phenomenon of counterexample tolerance in a unified framework, which is the first manifestation of the new approach in this paper. For the second trend, this paper holds that it fails to fulfill the generalization commitment of cognitive linguistics, which believes that different dimensions of human language share particular and universal foundational organizing principles. If the relevant series of phenomena at the syntactic dimensions (different types of Generic Sentences that can tolerate counterexamples) cannot yet be explained uniformly, how can we explain the cognitive mechanisms shared by different dimensions of language? This paper proposes the IRPR-RC Model, tentatively offering a unified explanation to the cognitive construction of Generic Sentences and trying to further realize the generalization commitment of cognitive linguistics, which is the second manifestation of the new approach in this paper.

Conflict of interest

Acknowledgements

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