

# The Motivation of Unaccusative Constructions in Chinese: A Comparative Investigation with Japanese

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**Abstract**—In Chinese there are some unaccusative constructions such as “Chuang-shang tang-zhe yige bingren ‘In the bed lies a patient’”, which are impossible in Japanese. This paper focused on the motivation of the occurrence of such constructions by comparing with Japanese and propose that, Chinese unaccusative constructions are extensions of existential constructions, which has a HAVE-type construction. By contrast, Japanese constructions which exactly express the same meaning also have similar syntactic configurations to Japanese existential constructions, which has a BE-type construction. Since HAVE-type construction has an analogous structure with unaccusative constructions but BE-type construction has not, we can assume a language which use HAVE-type construction to express existence would have a motivation to the appearance of unaccusative constructions.

**Keywords**—Unaccusative constructions, existence, HAVE-type construction, BE-type construction.

## I. INTRODUCTION

IT is well-known that verbs have two different types: transitive verbs (such as eat) and intransitive verbs (such as cry), basically distinguished by whether they are able to take a direct object, such as the difference between (1) and (2)a/(3)a. In modern linguistics, intransitive verbs can be divided further into two subtypes: unaccusative verbs and unergative verbs [1]-[3]. Usually an unaccusative verb takes a NP (nominal phrase) argument and an optional PP (PP) argument, the NP argument can either sit in the subject position, such as (1)a, or sit in the object position (post-verbal) in a *there* sentence, such as (1)b, or in a sentence which begins with a PP, such as (1)c. Contrast with unaccusative verbs, the only NP argument of an unergative verb can only appear in the subject position, sitting in the object position is ungrammatical such as (3) a, b.

(1) John ate an apple.

(2)a. A letter arrived.

b. There arrived a letter.

c. From the tax office arrived a letter.

(3)a. Mary cried.

b. \*There cried Mary.

c. \*In the room cried Mary.

Unaccusative verbs typically express existing, happening, such as *exist*, *happen*, *arise*, *show up*, etc. or the semantic role of the NP argument is a patient, such as *drop*, *sink*, *burn*, etc. Unergative verbs are typically the verbs of volitional acts, such as *play*, *smile*, *cry*, etc. [1]-[3].

As the above, usually an unaccusative verb in English has two kinds of constructions: one construct is that the only NP

argument of the verb sits in the subject position (pre-verbal), the other one is that the NP sits in the object position (post-verbal). Here we call the latter, whose NP argument is post-verbal, in other words, whose NP acts just like an object syntactically, unaccusative constructions.

## II. UNACCUSATIVE CLAUSES IN CHINESE AND JAPANESE

In Chinese, unaccusative clauses and unergative clauses also show the similar distinction. Notice the difference between *unaccusative constructions* and *unaccusative clauses*. An unaccusative construction is a sentence pattern whose only NP is in the subject position; and an unaccusative clause/sentence is a sentence whose predicate is an unaccusative verb. Some examples are shown below:

(4)a. Zhangsan chi-le yige pingguo.

Zhangsan eat-PAST one apple

‘Zhangsan ate an apple’

(5)a. Yizi-shang zuo-zhe yige ren.

chair-top sit-DUR one person

‘On the chair sat a man’

b. Yige ren zai yizi-shang zuo-zhe.

one person at chair-top sit-DUR

‘A man sat on the chair’

(6)a. \*Wuzi-li ku-zhe yige xiaohai.

room-inside cry-DUR one child

b. Yige xiaohai zai wuzi-li ku-zhe.

one child in room-inside cry-DUR

‘A child is crying in the room’

Chinese is a SVO language, usually a pre-verbal NP is a subject and a post-verbal NP is an object, see (4), the verb *chi* ‘eat’ is a transitive verb, the pre-verbal NP *zhangsan* is the subject, and the post-verbal NP *yige pingguo* ‘an apple’ is the direct object of the clause. The verb *zuo* ‘sit’ in (5) is an unaccusative verb, the only NP argument *yige ren* ‘a person’ can be either post-verbal, such as (5)a, or pre-verbal, such as (5)b. When the NP argument of the verb is post-verbal, the LP (locative phrase) sits in the subject position, acting just like the subject of the clause. In Chinese, a locative verb appears in two ways: independently or with a preposition. We call locative phrases without prepositions LP, and ones with a preposition PP. This is an unaccusative construction. By contrast, the verb *ku* ‘cry’ in (6) is an unergative verb, the only NP argument of the verb can only be pre-verbal, so (6)a is ungrammatical. From above we can see that in Chinese there exist unaccusative constructions.

Next let's see some Japanese examples:

- (7) Taro-ga ringo-wo tabe-ta.  
taro-NOM apple-ACC eat-PAST  
'Taro ate an apple'
- (8)a. Isu-ni otoko-ga suwatte-iru.  
chair-on man-NOM sit-DUR  
'a man sat on the chair'
- b.\*Isu-ni otoko-wo suwatte-iru.  
chair-on man-ACC sit-DUR
- (9)a. Heya-de kodomo-ga naite-iru.  
room-in child-NOM cry-DUR  
'a child is crying in the room'
- b.\*Heya-de kodomo-wo naite-iru.  
room-in child-ACC cry-DUR

Japanese is a SOV language, the Case of the arguments are morphologically marked by case markers, and the linear order of the arguments are free. See (7), the verb *taberu* (taberu is the basic form of tabe-) 'eat' is a transitive verb. It has two NP arguments: the agent *taro*, which is marked by a nominative case marker *ga* and the patient *ringo* 'apple', which is marked by an accusative case marker *wo*. The linear order of the two arguments are free, this means (7) can also be expressed as *ringo-wo taro-ga tabe-ta* 'apple-ACC taro-NOM eat-PAST'. The verb *suwaru* (suwaru is the basic form of suwatte) 'sit' in (8) is an unaccusative verb, but in Japanese the NP argument of the verb can only act as a subject, marked with an accusative case marker, which is the typical case of the direct object, is ungrammatical, see (8)a and (8)b. By contrast, the verb *naku* (naku is the basic form of naite) 'cry' in (9) is an unergative verb, the NP argument can only act as a subject, which is the same with unaccusative verbs in Japanese. From (8) and (9), we can know that in Japanese, the grammatical status of the only NP argument of unaccusative clauses and unergative clauses are quite the same, unaccusative constructions do not exist.

Here arises a question, why unaccusative constructions exist in Chinese, but not in Japanese? In other words, why the only NP argument of unaccusative verbs can act as an object in Chinese, but not in Japanese? This paper will focus on this question, and will solve this problem in connection with existential constructions and possessive constructions.

### III. THE RELATIONSHIP BETWEEN UNACCUSATIVE CLAUSES AND EXISTENTIAL CLAUSES

Unaccusative clauses are syntactically quite similar to existential clauses in both Chinese and Japanese. Sometimes when we refer to unaccusative clauses, existential clauses are also included. Now let us observe some Chinese sentences first.

- i. The only NP argument of both existential clauses and unaccusative clauses can be post-verbal, that means, acts as an object of the clause. See examples below:
- (10) Yizi-shang you yiben shu.  
chair-upside have one book  
'on the chair there is a book'
- (11) Yizi-shang zuo-zhe yige ren  
chair-upside sit-DUR one person  
'on the chair sat a person'

(10) is an existential clause, the only NP argument of the verb is *yiben shu* 'one book'. The verb of Chinese existential clauses *you* 'have' is a transitive verb (although low in transitivity), so Chinese existential clauses are transitive, the only NP, which means the existing thing, is the object of the clause. Observe the syntactic structure of (11), which is an unaccusative clause, excepting the verb itself, the rest of the elements of the clauses are completely the same. Not only the aspect of syntactic structure, but also semantically, we can consider the meaning of (11) as a state of existing (sitting). This would make it easier to regard unaccusative clauses like (11) as a kind of extension of existential clauses.

ii. The LP argument in both unaccusative clauses and existential clauses acts as the subject. Usually a LP in a transitive clause or an unergative clause needs a preposition *zai* 'at/in', see (12) and (13). However, a LP in an unaccusative /existential construction can sit in the subject position (the beginning of the sentence) independently (without a preposition), see (14)a and (15)a. Furthermore, when the LP of an unaccusative / existential clause is used as a non-subject, it usually needs the preposition *zai*, in the case of existential clauses, *zai* is more like a verb than a preposition, see(14)b and (15)b.

- (12) Zhangsan zai wuzi-li chi-le yige pingguo.  
zhangsan in room-inside eat-PAST one apple  
'zhangsan eat an apple in the room'
- (13) Zhangsan zai wuzi-li ku-zhe.  
zhangsan in room-inside cry-DUR  
'zhangsan is crying in the room'
- (14) a. Yizi-shang you yiben shu.= (10)  
chair-upside have one book  
'on the chair there is a book'
- b. Naben shu zai yizi-shang.  
that book on chair-upside  
'that book is on the chair'
- (15) a. Yizi-shang zuo-zhe yige ren.= (11)  
chair-upside sit-DUR one person  
'on the chair sat a person'
- b. Zhangsan zuo zai yizi-shang.  
zhangsan sit on chair-upside  
'zhangsan is sitting on the chair'

Next let's observe the similarities between unaccusative clauses and existential clauses in Japanese.

- iii. The case marker of the LP argument and the NP argument are exactly the same between unaccusative clauses and existential clauses, observe the examples below:
- (16) Isu-ni hon-ga aru.  
chair-on book-NOM exist  
'there is a book on the chair'
- (17) Isu-ni otoko-ga suwatte-iru.  
chair-on man-NOM sit-DUR  
'on the chair sat a man'
- (18) Heya-de kodomo-ga naite-iru.  
room-in child-NOM cry-DUR  
'a child is crying in the room'
- (16) is an existential clause, and (17) is an unaccusative clause. The NPs of the verbs are marked with a nominative case

marker *ga*, which means the NPs are subjects. The LPs of the verbs are marked with a locative marker *ni* 'in/at/on', which means the LPs are neither objects nor subjects. However, LPs of verbs in Japanese are not always marked by the marker *ni*, in unergative clauses, they are usually mark with another locative marker *de* 'at/in', see the difference between (17) and (18). From these facts, we can come to a conclusion that LPs in unaccusative clauses are different in nature from those in unergative clauses and are the same as those in existential clauses.

IV. EXISTENTIAL CLAUSES IN CHINESE AND JAPANESE

We talked about the similarities between unaccusative constructions and existential constructions in both Chinese and Japanese, so what is the connection between these similarities and the question why there exist unaccusative constructions in Chinese but not in Japanese? I claim that the different types of existential clauses determine the distinction on whether there is a motivation to the appearance of unaccusative constructions.

There are two types of existential clauses: HAVE-type construction, the predicate of which can be glossed as 'have', and BE-type construction, the predicate of which can be roughly glossed as 'be' or 'exist' [6]. See the examples below.

(19) Yizi-shang you yiben shu.=(10)=(14)a  
 chair-upside have one book  
 'on the chair there is a book'

(20) Isu-ni hon-ga aru.=(16)  
 chair-on book-NOM exist  
 'there is a book on the chair'

Obviously, Chinese existential clauses are HAVE-type and Japanese ones are BE-type. Why different type of constructions can express the same meaning (existence), and what is the difference between HAVE-type constructions and BE-type constructions?

First, let us discuss the former. Since HAVE-type construction is basically possessive semantically, and BE-type construction is locative/existential, we must discuss the intimacy between the notions of possessive relationship and locative/existential relationship. Here I explain this issue in CG (cognitive grammar) terms. In Langacker's opinion, both the two notions can be represented by the schema of reference point ability [4]-[6], which is sketched below.

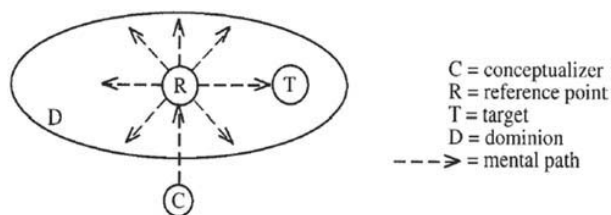


Fig. 1 Reference point ability

The reference point ability is our capacity to invoke one conceived entity as a means of establishing mental contact with another [4]-[6]. The conceptualizer (C) first directs attention to the entity serving as reference point (R). Attending to R evokes

a set of associated entities, collectively called its dominion (D), one of which is the target (T).

We can use this schema to interpret a possessive relationship, the possessor is R, the possessed is T. e.g. *Mary has a brother*. At first, we direct our attention to *Mary*, attending to *Mary* evokes a set of associated entities, such as *Mary's book*, *Mary's clothes*, *Mary's brother*, etc. All of these entities constitute *Mary's* dominion, one of which, *Mary's brother* is the target. The grammatical relationship is illustrated as shown in Fig. 2 [6].

In this whole possessive relationship, R is a trajectory, which means the primary focal prominence of the relationship. And T is a landmark, which means the secondary focal prominence.

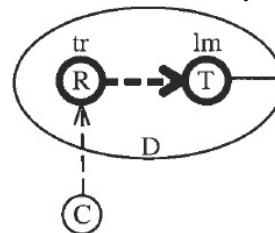


Fig. 2 The schema of possessive relationship

What about a locative/existential relationship? Typically, a locative expression identifies the delimited region where an entity can be found by invoking a reference object [6]. e.g. *a book is on the desk*. The locative phrase *on the desk* identifies the delimited region which is defined in relation to R (*the desk*). In this region T (*a book*) can be found. In this case, R (*the desk*) functions as a landmark, and T (*a book*) functions as a trajectory. The schema is sketched as follows [6]:

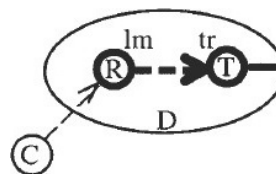


Fig. 3 The schema of locative/existential relationship

From the comparison above, we can find the associations between the notions of existence and possession. The semantical characteristics of both can be represented by the schema of reference point ability. This kind of semantical similarity makes it possible to use each of their basic constructions (HAVE-type construction and BE-type construction) to express both. In Chinese, both existential and possessive relationships are expressed by HAVE-type construction, while in Japanese, both existence and possession are expressed by BE-type construction.

Now let us discuss the differences between these two constructions. HAVE-type construction, like Chinese existential clauses, is a transitive construction, and BE-type construction, like Japanese existential clauses, is an intransitive construction. They are completely opposite in transitivity. This kind of difference comes from the basic meaning of these constructions.

This property depends on the basic meaning of each. In a typically possession relationship, the possessor (R) actively controls the possessed (T) in some manner- physically, socially, or experientially [6]. For example, *Mary's money*, *Mary* manipulates the money, determines where it is kept, and can use it whenever desired. This active control semantically makes HAVE-type construction transitive. However, in a typical existential relationship, such active control does not exist. For example, *a book on the desk*, the location (R) don't controls the existing thing (T), the relationship between them is temporary. The lack of active control makes BE-type construction intransitive. In general, the basic meaning of a construction determines its syntactic features, such as transitivity, the grammatical status of every elements, and so on.

Let's talk about the connection between the distinct of these two constructions and the motivation of the occurrence of unaccusative constructions. As unaccusative clauses is a kind of extension of existential ones, we can regard that the constructions they used are the same. For example, the construction of Chinese unaccusative clauses is as same as Chinese existential ones, that means HAVE-type construction, and the construction of Japanese unaccusative clauses is BE-type construction. When the R of HAVE-type construction is a location, it becomes unaccusative construction: the only NP acts as an object, and the LP acts as the subject. So, the motivation of the occurrence of unaccusative constructions in Chinese is that locative/existential clauses in Chinese is express by HAVE-type construction.

#### V. THE SEMANTICAL INTERPRETATION FOR UNACCUSSATIVE CONSTRUCTIONS

In this section, I will talk about a sematic interpretation for unaccusative constructions in Chinese.

In the first section, we mentioned that an unaccusative verb has two different constructions, one is that the NP is in the subject position (pre-verbal), the other is that the NP is in the object position (post-verbal). For example:

- (21) a. Zhangsan zuo-zai yizi-shang.=(15)b  
 zhangsan sit-DUR chair-upside  
 'zhangsan is sitting on the chair'  
 b. Yizi-shang zuo-zhe yige ren.=(15)a=(11)  
 chair-upside sit-DUR one person  
 'on the chair sat a person'

(21)a is the former, and (21)b is the latter. Although the predicate of them are the same, the semantics of the whole sentences are not exactly the same. (21)a describes an action of a person, so the actor is the subject. This action can either be volitional ones or non- volitional ones, so we can say a sentence like '*zhangsan xiang zuo zai nage yizi-shang* (zhangsan wants to sit on that chair)' to express an intention of the person. By contrast, (21)b describes a state of a location (*the upside of the chair*), so the locative phrase functions as the subject. The state of the location is that having something on in, as something here is a human, we want to describe it more specifically, so we add the existing way of the person (*sitting*) into the sentence, in other words, the state of the location is having someone sitting on it. Since the semantics of this sentence is not someone's

action, so we can't say '*yizi-shang xiang zuo yige ren* (on the chair wants to sit a person)'. From above, we can figure out that the distinction of these two constructions is the distinction that which one is the subject, actor or location. In Chinese, location can be conceptualized as a possessor to have something, while in Japanese such operation is not allowed.

#### VI. CONCLUSIONS

Although unaccusative verbs are intransitive, in an unaccusative construction, the only NP acts like an object, not a subject. Such phenomenon occurs in Chinese but not in Japanese. This paper focused on this distinction and discussed the motivation of the occurrence of unaccusative constructions in Chinese. We can regard unaccusative sentences as a kind of extension of existential clauses because of the similarities between them, thus the construction of existential clauses in Chinese, i.e. HAVE-type construction, is also a kind of unaccusative construction. Because of the intimate relationship between possession and existence, the construction which basically expresses possession is used to expresses existence in Chinese. In this way, the basic meaning of the construction contradict the actual meaning in the respect of which is the primary focal prominence. In this situation, the basic meaning of the construction determines its syntactic features, i.e. the LP is the subject and the NP is the object, the whole sentence is transitive. Semantically, the fact that existence is expressed by HAVE-type construction means that in Chinese location can be conceptualized as a possessor, it can has a state, while in Japanese such operation is not allowed.

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