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The Syntax of Passives and Related Constructions in Mandarin Chinese

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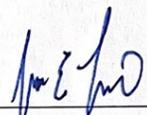
by

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Contents

Abstract

This thesis discusses the Mandarin Chinese passive, a construction that differs in significant ways from its better known, European counterparts. While the passive is one of the most well-studied constructions in syntax, the passive in Chinese remains understudied and not as well understood. The thesis offers an analysis of multiple passive markers in Chinese, focusing on *bei* and *gei*. Superficially, the two markers both participate in passive and passive-like constructions. However, upon closer scrutiny, it is demonstrated that only *bei* qualifies as a true passive marker, while *gei* is shown to belong to a more general category of Non-Active Voice, which is elaborated in the thesis. It is demonstrated that *bei* and *gei* differ significantly in their distribution. While *bei* is used strictly in those environments that allow the passive cross-linguistically, *gei* distributes more broadly, across a range of non-active constructions that are incompatible with the passive voice. It is argued that *bei* and *gei*, and possibly other functional verbal markers, are simply instantiations of a more general Non-Active Voice in Chinese. A main goal of the thesis is to provide a formal, structural definition of Non-Active Voice, which unifies *bei* and *gei* constructions under a single structural description that makes a unique contribution to a more general Voice typology.

1 Introduction

This thesis discusses the syntax of passive Voice and, more generally, Non-Active Voice in Mandarin Chinese (which will be referred to as Chinese in this thesis.) I analyze two Voice heads, *bei* and *gei*, against a broader definition of passives that I adopt from Bruening (2013) and apply a range of tests to show that despite the superficial similarities between the *bei* passive and the *gei* passive-like construction, only *bei* is a true canonical passive Voice head in Mandarin. Crucially, I argue that the long *bei* passive does not involve A-movement, familiar from European languages. Instead, the Voice head *bei* is a two-place predicate that projects a subject in its specifier position, assigns an experiencer theta role to it, and selects a CP complement as its internal argument. In other words, the relation between the surface subject of the *bei* passive and the underlying object is not mediated by movement (Huang 1999). Therefore, this demonstrates that the dependency between the surface subject and the underlying object can be significantly more complicated syntactically.

In contrast to *bei*'s behavior as a typical passive marker, *gei* exhibits a "long passive constraint," such that the external argument in the passive-like construction must be realized syntactically and cannot be implied. Furthermore, in the *gei* long-passive-like construction, there is a requirement for high transitivity verbs, a constraint that is absent in the *bei* passive. That is, *gei* resembles passive *bei*, but distributes differently. The subject in the *gei* passive-like construction is interpreted as adversely affected, whereas the subject in the *bei* passive is interpreted as neutral. Finally, while it is established that anticausatives and pure unaccusatives cannot be passivized, *gei* is surprisingly acceptable in both. I argue in my thesis that in addition to the long passive constraint that disqualifies *gei* as a genuine passive Voice head, all the differences mentioned above further distinguish *bei* and *gei*. An analysis is offered that unifies

bei and *gei* as two instantiations of a more general Non-Active Voice. Both the *bei* passive and the *gei* construction have a non-thematic agent in the lower VoiceP. I posit that this novel way of existential binding is the defining feature of Non-Active Voice in Chinese. In this thesis, I also provide evidence that Voice heads in Chinese are predicates, exactly in the sense of Kratzer (1996).

In Section 2.1, I present the definition of the passive I adopt and show that the *bei* construction behaves like a typical passive. Then, I review the distribution of other non-active constructions in Chinese, more generally. I focus narrowly on the *v*P-layer and provide a non-derivational analysis of the *bei* construction on a constructionalist approach in 2.2. I discuss *gei*'s status in Section 3.1 and argue that it is not a true passive Voice head. In 3.2, I analyze the "long passive constraint", *gei*'s requirement of high transitivity verbs, and the relation between the two. In 3.3, I present the syntactic structure of the *gei* long-passive-like construction. In Chapter 4, I broaden my discussion of Non-Active Voice in Chinese to the typology of Voice and compare *bei* and *gei*'s distribution. I end with a short conclusion and a discussion about future directions of research in Chapter 5.

2 Canonical *bei* passives

2.1 Definition of the passive and empirical survey

2.1.1 The definition of passives

The definition of passives has been a long-debated topic in generative syntax. Legate (2021) defined canonical passives as having three characteristics: agent demotion, theme promotion, and distinctive morphological marking. This definition is narrowly based on English passives and and similar constructions across Germanic and Romance languages, thus treating a range of non-active constructions in different languages as non-canonical passives, including the Chinese *bei* passive. In this thesis, I adopt a more universal definition of passives, where passivization is a morphosyntactic operation that prevents the syntactic projection of the external argument. This is accomplished by existentially binding the argument of Voice (Keenan 1980, 1985 and Bruening 2013). Case and object promotion are both irrelevant and only epiphenomena of passives. Thus, a passive can be defined as following:

(1) Definition of passives

The passive is a morphosyntactic operation that prevents the realization of the external argument as an argument of Voice.

Bruening (2013) argues that a passive can be identified as either having a missing external argument interpreted as an existential or having the external argument realized as an adjunct. I will challenge specifically the second identifying feature of the passive using the Chinese *bei* long passive and will demonstrate that the Chinese *bei* passive is a true passive, whereas a related non-active *gei* construction is not, despite its superficial similarities.

2.1.2 The Chinese bei *construction*

In an isolating language like Chinese, there is no suffixation on verbs to indicate alternations in argument structure and Voice. There is, however, a verbal particle *bei* that is considered the canonical passive marker in Chinese. Comparing (2a) to (2b-c), we see that the presence of *bei* is responsible for a different argument arrangement where the subject is the theme of the "hitting" event. Sentences (2b-c) show the typical long and short passives with *bei*. In the long passive (2b), the external argument is demoted, but realized, whereas in the short passive (2c), the external argument is existentially bound and not projected.

(2)   a. Lisi da-le   Zhangsan.
               Lisi hit-LE Zhangsan
               'Lisi hit Zhangsan.'
        b. Zhangsan **bei** Lisi da-le.
               Zhangsan BEI Lisi hit-LE
               'Zhangsan was hit by Lisi.'
        c. Zhangsan **bei**   da-le.
               Zhangsan BEI hit-LE
               'Zhangsan was hit.'   (Huang 1999: 3)

To show that sentences like (2b-c) are true passives, I employ a variety of tests to provide evidence that the subject is the theme, and that the implicit external argument is present semantically, even in short passives where it is not realized syntactically.

As pointed out by Alexiadou et. al (2015), *by-itself* modification is incompatible with an agent or an external causer. In English, *by itself* is not licensed in passives, but is compatible with anticausatives. This is a standard test for the presence of external causation. The contrast is shown in (3).

(3)   a. *The door was broken by itself.
        b. The door broke by itself.

In the passive, the event is clearly caused, either by a volitional human participant, a natural force, or an instrument. Even though the agent or causer is not stated explicitly, the incompatibility of *by itself* with (3a) is evidence that the implicit external argument is present semantically and is existentially bound. The anticausative, on the other hand, lacks an implicit external argument, and for this reason is grammatical with *by itself* modification. The Chinese counterpart of the *by-itself* phrase is *ziji*. If the *bei* constructions in (2) are indeed passive, we would expect *ziji* to be incompatible with *bei*, as in (4b).

(4)   a. Huaping   **bei**   da-sui-le.
               vase   BEI   hit-broken-LE
               'The vase was broken.'
        b. *Huaping ziji   **bei**   da-sui-le.
               vase   by itself   BEI   hit-broken-LE
               *'The vase was broken by itself.'
        c. Huaping   ziji   sui-le.
               vase   by itself   break-LE
               'The vase broke by itself.'

Comparing (4a) and (4b), we see that inserting *ziji* 'by itself' in a *bei* construction without the external argument realized causes the sentence to become ungrammatical. Like in English, *ziji* is allowed in the anticausative (4c). We can then conclude that the incompatibility of *ziji* with *bei* is due to the fact that *bei* asserts the presence of an implicit external argument. Thus, *bei* constructions behave like canonical passives that existentially bind the external argument.

Now I turn to the different forms of 'break' in (4a-b) versus (4c). In Chinese, there are resultative compound verbs that are bi-morphemic. The verb in (4a) *da-sui* is one such verb. These verbs can project event structures that are not readily visible in languages like English. The first morpheme *da* is a transitive lexical verb indicating a causative event. The second morpheme *sui* is an intransitive, indicating a resultative state (Huang 2009). Thus, in the anticausative above, the transitive predicate *da* is not present. In canonical passives, syntactic

operations driven by passive markers or morphemes remove or existentially bind the external

argument and dethematize it as defined in (1). In order to have a passive construction, the "basic"

valency of the predicate has to be at least two. Thus, we can use the second (resultative)

morpheme in these resultative compound verbs to test if *bei* patterns like canonical passive

constructions. The prediction is that the resultative morpheme alone will reject passive formation

because it lacks the higher causative structure that hosts the external argument.

(5)　　　　a. Shui　　**bei**　　(chushi)　　shao-kai-le.
　　　　　　　water　　BEI　　chef　　　heat-boiled-LE
　　　　　　　'The water was boiled by the chef.'
　　　　　　b. *Shui　　**bei**　　(chushi)　　kai-le.
　　　　　　　water　　BEI　　chef　　　boiled-LE
　　　　　　　Intended reading: 'The water was boiled by the chef.'

As expected for passives in other languages, the intransitive predicate indicating the resultative

'boiled' state, *kai*, is not compatible with *bei*. There has to be the transitive morpheme *shao* 'to

heat' to assert the existence of the external argument for the *bei* construction to be grammatical.

As indicated by the optionality of 'chef' in (5a), even without the underlying subject realized, *bei*

is still grammatical so long as the causative component *shao* is expressed. This is another piece

of evidence that the subject is existentially bound in a short *bei* construction. Again, we see that

the *bei* construction in Chinese behaves similarly to canonical passives in other languages.

Based on evidence from *by-itself* modification and sensitivity to a causative subevent, I have

demonstrated that *bei* constructions behave like canonical passives in that the external argument

is not syntactically realized as an argument of Voice, in the sense of Kratzer (1996). I treat the

bei passive as the prototypical passive in Chinese, but I will also consider other passive-like

constructions that occur with the particle *gei* that contribute to my broader discussion of Non-

Active Voice constructions.

2.1.3 Non-canonical passives and other functional particles

Other than *bei*, functional particles like *gei, jiao* and *rang* can also participate in Non-Active

constructions. These three verbal elements are not completely grammaticalized in modern

Chinese. They have the lexical meanings 'give', 'ask' and 'let' respectively, but in some

constructions, they are grammaticalized, by hypothesis, to function like *v*-heads.

One interesting phenomenon involving *gei* is that there is a systematic ambiguity in

interpretation that does not exist with *bei*. In this thesis, I focus on the passive reading of *gei* in

(6a). The particles *gei*, *jiao* and *rang* also form passive-like constructions, but unlike *bei*, these

markers are compatible with the long passive only, as demonstrated below.

(6)   a. Zhangsan **gei** Lisi da-le.
            Zhangsan GEI Lisi hit-LE
            'Zhangsan was hit by Lisi.' OR 'Zhangsan hit Lisi.'
         b. *Zhangsan **gei**   da-le.
             Zhangsan GEI   hit-LE
             'Zhangsan got hit.'
         c. Zhangsan **jiao**   Lisi da-le.
            Zhangsan JIAO Lisi hit-LE
            'Zhangsan was hit by Lisi.'
         d. *Zhangsan **jiao**   da-le.
             Zhangsan JIAO   hit-LE
             Intended reading: 'Zhangsan was hit.'
         e. Zhangsan **rang**   Lisi da-le.
            Zhangsan RANG   Lisi hit-LE
            'Zhangsan was hit by Lisi.'
         f. *Zhangsan **rang**   da-le.
             Zhangsan RANG   hit-LE
             Intended reading: 'Zhangsan was hit.'

In stark contrast to *bei, gei*, *jiao*, and *rang* are ungrammatical with the short passive. The external

argument must be realized with these markers, although in a dethematized position. Since in the

prototypical *bei* passive, the external argument is either optionally realized or existentially

bound, *gei*, *jiao* and *rang* must have a different set of features from *bei* that project different

arrangements of arguments. In what follows, I focus on the non-Active Voice head *gei*. Some

specific distinctions between *gei* and *bei* will be analyzed later in Chapter 4. At first glance, this

long passive constraint of *gei*, *jiao* and *rang* seems counterintuitive. While it is not unusual for

passives in certain languages to disallow a *by*-phrase, typologically, it is rare when a passive

actually requires the presence of a *by*-phrase. According to Grimshaw (1990) and Schäfer

(2017), the external argument of a passive is standardly taken to be existentially bound and thus,

not realized obligatorily, contrary to the behavior of *gei*, *rang*, and *jiao*, which raises questions

either about the status of these verbal particles as passive markers or about the structure of

passives, in general. This issue will be discussed below when I show that *gei*, in particular,

should not be treated as a passive marker despite its superficial similarities to *bei*.

2.2 The structure of the *bei* passive: a constructionalist approach

2.2.1 Evidence against A-movement in long passives

For languages that display a derivational relationship between passives and their active

counterpart, the standard analysis for passives is the A-movement (DP movement) approach. The

object in the underlying structure moves to the specifier of TP. The agent is now dethematized

and can be optionally realized as a *by*-phrase. At first glance, *bei* might look like *by* in the

English long passive, since *bei* is followed by the demoted subject (2b). Some earlier work on

Chinese passives did indeed treat *bei* in the long passive as a preposition (Shi 1997, Hashimoto

1988). This claim is false for many reasons, as shown by Huang (1999). The most obvious one is

that in the short Chinese passive, *bei* is grammatical on its own, while a genuine prepositional

head must take a complement. The *bei* plus agent string also does not act like a constituent. It cannot move together (7a-b) like other prepositional phrases (7c-d) in Chinese.

(7)   a. Zhangsan zuotian   **bei** *Lisi* da-le.
            Zhangsan   yesterday BEI Lisi   hit-LE
            'Zhangsan was hit by Lisi yesterday.'
       b. *****bei** *Lisi* Zhangsan zuotian   da-le.
             BEI   Lisi Zhangsan yesterday da-LE
             Intended reading: 'Zhangsan was hit by Lisi yesterday.'
             (cf. It was by Bill that John was hit yesterday.)
       c. Zhangsan *dui* *Lisi* hen   ke-qi.
            Zhangsan to   Lisi   very polite
            'Zhangsan is very polite to Lisi.'
       d. *dui Lisi* Zhangsan hen   ke-qi.
            to   Lisi   Zhangsan very polite
            'Zhangsan is very polite to Lisi.'   (Huang 1999: 6)

The Chinese passive also shows no evidence of A-movement. I argue that functional particles like *bei*, which rearrange arguments, are *v*-heads, and that the *bei* passive is not derived from the active construction in (2a). Different non-active structures in Chinese like passives and anticausatives are projected by *v*-heads directly. Here, I discuss four pieces of evidence against A-movement in Chinese *bei* passives:

  i) **No motivation for Case assignment**: In languages where Case is prominent, DP movement is thought to be driven by Case, that is, DPs move to a position in which they are local to their Case assigners. In Modern Chinese, a language that exhibits no sign of Case based on current thinking (Baker 2015: 52; and p.c.), there is no evidence of movements elsewhere that are driven by Case. Thus, we can infer that the underlying object DP in Chinese passives is also not motivated to move for Case assignment.

  ii) **No discontinuous spell-out**: Traditional A-movements and A'-movements can be analyzed as composite operations involving two suboperations: copying and deletion (Radford 2009). The phrase which is subject to movement is first copied to the destination, leaving behind a full copy

of itself at the extraction site, then the original copy at the extraction site is deleted. However, English allows discontinuous spellout, as demonstrated in (8b). After the copying operation, two full copies of the italicized QP can be found both at the extraction site and in Spec,TP. Then, part of the QP at the extraction site is deleted, as indicated by the strikethrough, resulting in the PP complement *of any corruption* spelled out in-situ, and the rest of the QP spelled out in the higher position.

(8) a. *No evidence of any corruption* was found ~~*no evidence of any corruption*~~.
   b. *No evidence ~~of any corruption~~* was found ~~*no evidence*~~ *of any corruption*.

(Radford 2009: 256)

The examples in (8) show a remnant of A-movement in English passives. If Chinese *bei* passives also involved A-movement, we might see a similar phenomenon, which, in point of fact, is impossible.

(9)   a. *yi-tiao   guanyu   xianyiren   de   xiansuo* dou mei **bei** jingcha zhao-dao.
         one-CL   about   suspect   DE   clue   all not BEI police found
         'No clue about the suspect has been found by the police.'
      b. **yi-tiao   xiansuo* dou mei **bei** jingcha zhao-dao *guanyu   xianyiren   de*.
         one-CL   clue   all not BEI police found   about   suspect   DE
         Intended reading: 'No clue has been found by the police about the suspect.'

In (9a), the whole thematic DP *yi-tiao guanyu xianyiren de xiansuo* ('a clue about the suspect') appears in the subject position. If there was a movement, we might expect (9b) to be grammatical with part of the DP *guanyu xianyiren de* ('about the suspect') left behind in the "extraction site." However, splitting the thematic DP into two parts at two different positions is not allowed in the *bei* passive. This is suggestive of a non-movement analysis. Instead, I propose that *bei* projects the DP in the Spec,TP position directly – the DP is base-generated in this position. Now, an issue arises with this analysis. Since, by hypothesis, the theme of the predicate is not moved from the

object position, how do we get the theme reading on the surface subject of the passive? I will address this issue with a full analysis of the Chinese long passive in section 2.2.2.

   iii) Possessor topic constructions and the Theta Criterion: "Discontinuous spell-out" is not entirely ruled out with *bei*. Under one instance when the subject is the external possessor of the theme, the theme can stay in situ as the direct object of the verbal predicate, which looks similar to a partial spell-out[1]. The possessor topic construction is not limited to *bei* passives. It is not a feature of the passive, but a more general phenomenon in Chinese (10). This construction is the passive Voice with *bei* is shown in (11).

(10)   Wangmian   si-le   fuqin.
        Wangmian   die-LE   father
        'Wangmian's father died.'   (Qian, p.c.)

(11)   a. Zhangsan de   qian   **bei**   Lisi   tou-le.
           Zhangsan DE money BEI   Lisi   steal-LE
           'Zhangsan's money was stolen by Lisi.'
        b. Zhangsan   **bei**   Lisi   tou-le   qian.
           Zhangsan   BEI   Lisi   steal-LE money
           'Zhangsan's money was stolen by Lisi.'
        c. *bei   Lisi   tou-le   qian.
             BEI   Lisi   steal-LE   money

In (11a), the whole DP *Zhangsan de qian* ('Zhangsan's money') is the theme of *steal* and in the subject position. In (11b), the theme, *qian* ('money'), remains in situ. Crucially, even though now *Zhangsan* occupies the subject position in the passive, it is not an argument of the lexical verb. It simply modifies *money* and does not fill an argument position. This partial copy in-situ phenomenon does not necessarily suggest movement. From example (11c) we can see that *bei* is necessarily argument introducing. That is, *bei* has an EPP feature that needs to be satisfied. As

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[1] I thank Jiaqi Lin (p.c.) for bringing this to my attention.

the possessor of the entity undergoing the stealing event, *Zhangsan* is externally merged as the subject of *bei* to satisfy the EPP.

The examples in (11) provide another piece of evidence against A-movement. *Zhangsan* in (11a) does not have the same interpretation in (11b). In (11a), *Zhangsan* is simply the possessor of the stolen money and as mentioned above, the whole possessor DP is the theme. However, in (11b), even though pragmatically speakers understand it was *Zhangsan*'s money that was stolen, there is no direct possessor interpretation of *Zhangsan* in the "possessor topic" construction. This is reflected in the fact that the possessive morpheme *de* is not in the subject position with *Zhangsan*. Movements do not absorb morphemes. Without *de*, *Zhangsan* fails to act like a possessor syntactically. In this case, *Zhangsan* bears an experiencer theta role while *money* bears the theme theta role. Because the subjects in (11a) and (11b) bear two different theta roles, the discontinuous spell-out cannot be a result from A-movement, as A-movements do not alter theta roles. *Zhangsan* is externally merged in (11b), and thus is an argument of *bei*. The core feature of an argument is that it can be and must be assigned a theta role by its predicate. Therefore in (11b), *bei* assigns an experiencer theta role to *Zhangsan*. If the subjects in (11a-b) are both arguments of *bei,* I argue that *bei* assigns the experiencer theta role in the event that its subject is an animate argument. That is, the theta assigning property of *bei* is a function of animacy. Going back to the first example of the *bei*-passive in (2b), repeated here in (12), the subject *Zhangsan* appears to be interpreted as both the theme of the hitting event and as the experiencer argument of *bei*.

(12)   Zhangsan **bei** Lisi da-le   e.
       Zhangsan BEI Lisi hit-LE e
       'Zhangsan was hit by Lisi.'

Based on the Theta Criterion (Chomsky 1981), every argument bears one and only one theta role. The experiencer theta role of the animate subject proves that the empty element in the object position of the lexical verb and the subject *Zhangsan* are two discrete arguments, with the silent underlying complement as the theme and the subject as an experiencer, and crucially not the same argument related by movement. This will become clearer when I introduce the syntactic structure of long *bei* passives in 2.2.2.

   iv) No affix-driven argument rearrangement: In an isolating language like Chinese, there is no affixation or any type of inflectional morphology. Therefore, there are also no affix-driven argument rearrangements like passives in English. I argue that all predicates in Chinese leave the lexicon with only minimal lexical information and no extra functional information. Since Chinese predicates are always in their most basic form with no affixation, adding particles like *bei* determines certain argument rearrangements, which strongly supports the constructionalist view of syntax, whereby overt, discrete elements in the syntax build structure. It follows that a more constructionalist approach towards Chinese would push back against the necessity of A-movement because the lexical verb does not carry all the information about argument deployment when leaving the lexicon. It is the syntax around the lexical verb, in this case, the independent *v*-head *bei*, that determines the arrangement of arguments. More specifically, the presence of *bei* is directly responsible for projecting the theme in the subject position and demoting the agent. No derivational relationship exists between the *bei* passive and any other constructions as there is no affixation to lexical verbs driving derivational movements.

2.2.2 The structure of long bei *passives*

Now I turn to a constructionalist analysis of the Chinese long *bei* passive. In 2.2.1, I provided

evidence that *bei* passives in Chinese are not derivational, meaning there is no A-movement.

Here I propose an analysis involving argument rearrangement determined directly by

independent *v*-heads. The argument rearranging head *bei* plus a transitive or a bi-morphemic

resultative compound lexical verb gives rise to the passive. In this arrangement, the underlying

theme is projected directly in the Spec,*v*P position, while the (dethematized) agent appears in the

lower Spec,VoiceP position dominating the lexical VP. However, as mentioned in the previous

section, following this non-derivational passive hypothesis, if the external argument is base

generated in the Spec,TP position, we need a way to relate the surface subject to the underlying

theme of the lexical verb. This necessitates A'-movement, along the lines of *tough*-movement,

where a null operator (or NOP) in Spec,CP controls the interpretation of V's complement

(Sportiche et al. 2014: 413). See (13) for an example and (14) for the corresponding tree.

  (13)   Bill$_i$ is tough [$_{CP}$ OP$_i$ [$_{TP}$ PRO to work with t_i].

(14)

```
                    TP
            ┌────────┴────────┐
           DP               T′
         ⌒⌒⌒          ┌──────┴──────┐
         Bill_i       T            VP
                      │             │
                     is_j          V′
                           ┌────────┴────────┐
                           V               AP
                           │         ┌──────┴──────┐
                          t_j       DP           A′
                                    │       ┌─────┴─────┐
                                   t_i      A          CP
                                            │     ┌─────┴─────┐
                                          tough  NOP_i       C′
                                                       ┌──────┴──────┐
                                                       C            TP
                                                            ┌────────┴────────┐
                                                           DP               T′
                                                          ⌒⌒⌒         ┌──────┴──────┐
                                                          PRO         T           VP
                                                                      │      ┌─────┴─────┐
                                                                     to      V          PP
                                                                             │      ┌────┴────┐
                                                                           work     P       DP
                                                                                    │      ⌒⌒⌒
                                                                                   with    t_i
```
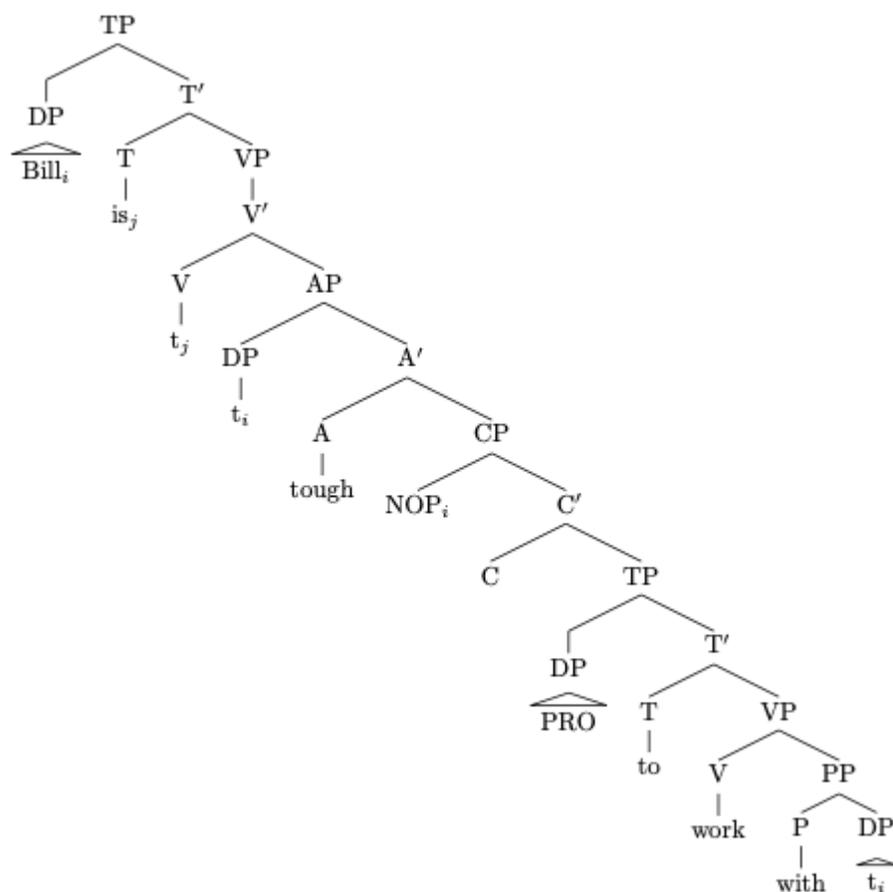
(adapted from Sportiche et al. 2014: 414)

In the *tough*-construction, there is an A'-movement of the null object to the Spec,CP position. And the relation between the NOP and the surface subject is one of predication or control (Huang 1999). In the Chinese long passives (2b), the issue with *Zhangsan* appearing in subject position while simultaneously being interpreted as the theme on the non-A-movement approach is resolved with A'-movement. In fact, the *tough*-construction is the only way the experiencer subject in the long passive can get coreference with the underlying theme without A-movement. Similar to the structure above in (13-14), a NOP occupies Spec,CP, binding the complement of *da-le*, as indicated by the coindexation of the NOP and the trace in (15-16). Note that the complement of V is thus closed off, thereby making (17) ungrammatical.

(15)   Zhangsan$_i$ **bei** [$_{CP}$ OP$_i$ [$_{TP}$ Lisi da-le t_i]]

(16)
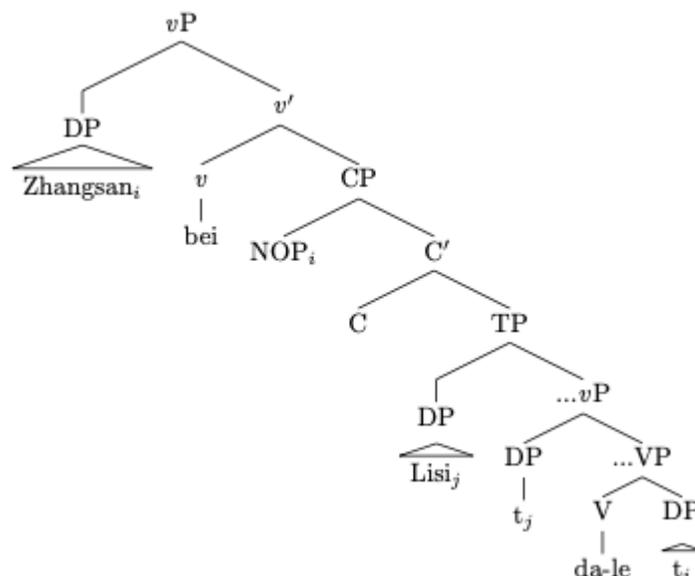
(17)   *Zhangsan **bei** Lisi da-le ta.
Zhangsan BEI Lisi hit-LE him
Intended reading: 'Zhangsan was hit by Lisi.'   (adapted from Huang 2009)

The subject is base generated as the specifier of the *v*-head *bei*. The coindexation of *Zhangsan*,

the NOP, and the trace in the complement position of the lexical verb in this structure

demonstrates how the surface subject gets the theme reading in the long passive. The

dethematized agent *Lisi* originates in the subject position of the embedded *v*P. Here, the Voice

head *bei* projects an experiencer subject in its specifier position and selects a CP as its internal

argument. This is *bei*'s lexical specification. The CP contains the NOP, which is conindexed

with the underlying theme, yielding coreference. My analysis is consistent with Folli, Harley,

and Karimi (2005), who observe that in some languages, the light verb (in certain Voices) is the

only verb in the clause. The structure in (16) also reflects Huang's analysis (1999) that the

Chinese long passive involves an embedded CP. While my analysis is motivated by attempting a

non-DP-movement in the Chinese passive, I arrive at a similar structure as Huang's. For further

empirical motivation, see Huang 1999. The non-derivational analysis of Chinese *bei* passives

requires an A'-movement (to get the semantics right) and thus two TPs. This bi-clausal structure

explains why adding an adverb like *guji* 'intentionally' to the passive in two different positions

(one in the higher clause, one in the lower one) results in two different readings (18).

(18)   a. Zhangsan *guji* **bei** Lisi da-le.
           Zhangsan deliberately BEI Lisi hit-LE
           'Zhangsan was hit by Lisi, and he wanted to be hit by Lisi.'
          b. Zhangsan **bei** Lisi *guji* da-le.
           Zhangsan BEI Lisi deliberately hit-LE
           'Zhangsan was hit by Lisi deliberately.'

Bei as a Voice head has its own argument structure. It is a two-place predicate that takes a DP in

its specifier position and a CP as a complement. It also assigns its own theta role as shown

above. The subject *Zhangsan* in (17) is interpreted simultaneously as the understood theme of the

lexical verb *da* 'hit' and as the experiencer of *bei*. According to the Theta Criterion, the

pronounced subject and the null underlying theme must then be two separate arguments, and not

one argument related by A-movement. This was also clearly shown in example (11) with the

"possessor topic" construction.

      Chinese is not the only language to have non-derivational passives. Folli, Harley, and

Karimi argue that Persian passives[2] likewise are not built on top of an agentive structure (2005).

Instead, passives and agentive structures are in an equipollent relationship. Some Western

Austronesian languages with Philippine-type or Indonesian-type Voice systems also exhibit

similar behaviors. In constructions with distinct Voice prefixes, neither construction is the

"basic" construction from which the other is derived (Chen & McDonell 2019).

      The structure of the Chinese long *bei* passive in (16) challenges Bruening's second

identifying feature of passives as having the external argument realized as an adjunct. The agent

---

[2] Folli, Harley, and Karimi argue that Persian is a bundling language (in the sense of Pylkkänen 2008), where the functions of v^0 and Voice^0 are subsumed under one head. Thus, with no separate Voice^0, Persian lacks true passives, instead implementing passive-like meanings through argument rearrangements that require distinct light verbs.

Lisi in (16) is not in a traditional adjunct position. It originates as the Spec,*v*P and moves to the

Spec,TP as any other external argument. However, because it fails to be projected as the subject

of the highest Voice head in the biclausal construction, *Lisi* is a dethematized agent. Long *bei*

passives satisfy the function of all passives: agent defocusing (Sanso 2006). Even though the

external argument here is not realized as an adjunct, it still fits the definition of passives in (1)

because it is not an argument of Voice. The difference between the realization of the external

argument in a long *bei* passive and one in a traditional *by*-phrase is that the dethematized external

argument in the former is still syntactically active, which challenges Bruening's identifying

features of passives where the external argument is either existentially bound or realized in an

adjunctive *by*-phrase. This can be shown in the following example where the agent in the

Chinese long passive can still bind anaphors.

(19) Zhangsan$_i$ **bei** Lisi$_j$ jieshao gei-LE ziji$_{i/j}$ de lingdao.
      Zhangsan BEI Lisi introduce to-LE self   DE boss
      'Zhangsan$_i$ was introduced by Lisi$_j$ to his own$_{i/j}$ boss.'   (Li 2016)

As observed first by Y.-H. Huang (1984), bare reflexive *ziji* in Chinese shows a possibility of

long-distance binding only if the long-distance antecedent agrees with all local and intermediate

potential antecedents in "phi-features." Because *ziji* in (19) can corefer to both *Zhangsan* and

Lisi in person, number, and gender, both DPs are syntactically active antecedents available for

binding the reflexive pronoun.

The fact that in the Chinese standard long passive, the external argument is realized not

as an adjunct with a *by*-phrase, while the whole construction remains a passive, broadens the

definition of canonical passives.

2.2.3 The structure of short bei *passives*

The structure of the short passive in Chinese is different from that of the long passive. As we

have seen in (16), since the external argument is not introduced by an adjunctive *by*-phrase, the

short *bei* passive cannot simply be the long form without an adjunct. Following Huang (1999), in

the Chinese short passive, *bei* selects a VP instead of a CP. The effect can be seen in (20) and

(21).

> (20)   a. Zhangsan **bei** Lisi wuqing de kaichu-le.
> Zhangsan BEI Lisi ruthless DE fire-LE
> 'Zhangsan was fired by Lisi ruthlessly.'
> b. Zhangsan **bei** Lisi zai zaoshang kaichu-le.
> Zhangsan BEI Lisi in morning fire-LE
> 'Zhangsan was fired by Lisi in the morning.'
>
> (21)   a. Zhangsan **bei** wuqing de kaichu-le.
> Zhangsan BEI ruthless DE fire-LE
> 'Zhangsan was ruthlessly fired.'
> b. *Zhangsan **bei** zai zaoshang kaichu-le.
> Zhangsan BEI in morning fire-LE
> 'Zhangsan was fired in the morning.'   (adapted from Huang 1999)

In the long passive (20), the AP or PP adjunct has two sites of attachment – either the entire

lower clause or the lexical VP. In the short passive (21), however, only the adjunct that modifies

the VP alone is grammatical. Huang argues that this is because *bei* takes a VP complement in the

short passive and does not have a place to host a sentential modifier (in the morning), whereas in

the long passive, *bei* takes a CP complement, thus allowing both a VP adjunct and a sentential

adjunct. See Huang (1999) for further empirical motivation. The syntactic structure of the

Chinese short passive is posited as the following:

> (22)
>
> Zhangsan$_i$ bei [$_{VP}$ PRO$_i$ [$_{V'}$ da-le t$_i$]]
> |___ Control ___↑ ↑__ A-movement __|
>
>   (Huang 1999)

According to Huang (1999), the *bei* in the short passive is different from the one in the long passive. In the short passive, the PRO object of the verb undergoes A-movement to the specifier of VP and is controlled by the surface subject. As in the case of the long passive, the subject *Zhangsan* is still base generated in Spec,VoiceP and assigned an experiencer theta role by *bei*.

The discussion of the short *bei* passive is relevant here only in relation to the "long passive constraint" of the *gei* construction mentioned in (7). An interesting question to ask is why the structure of the short *bei* passive cannot occur with *gei*. I will discuss the distribution and argument structure of *gei* in detail in the following chapter.

3 The *gei* constructions

3.1 *gei*'s status

3.1.1 The passive-like construction

Gei has a range of different uses, both as the ditransitive lexical verb 'give' and as a functional

verb. In this thesis, I focus on the usage of *gei* in a passive-like structure, provided in (6-7) and

repeated in (23).

(23)   a. #Zhangsan **gei** Lisi da-le.
               Zhangsan GEI Lisi hit-LE
               'Zhangsan was hit by Lisi.' OR 'Zhangsan hit Lisi.'
        b. *Zhangsan **gei**   da-le.
               Zhangsan GEI   hit-LE
               'Zhangsan got hit.'

The ambiguity in (23a) suggests two different sets of functions of *gei* in the sentence. It is

possible that the reading where *Zhangsan* is the agent comes from *gei*'s ditransitive properties

(Lin & Huang 2015). In this section, I focus on the light verb reading of *gei*. The passive reading

of (23a) makes the construction almost identical to the canonical long passive, with the subject

Zhangsan interpreted as the theme and *Lisi* as the agent. However, the long passive constraint of

gei, indicated in (23b), casts doubt on *gei*'s status as a passive marker. Based on Schäfer's (2017)

typology of Voice, the external argument in passives is existentially bound, as in the case of the

short *bei* passive. The obligatory appearance of the external argument, *Lisi*, with *gei* means that

it is not existentially bound in (23b), and its realization is syntactically required by *gei*. While

languages like Amharic, Latvian, and Turkish among many others do not have long passives

(Kulikov 2011), it is extremely rare that a passive marker allows only long passives. Thus,

typologically, there is reason to question *gei*'s status as a passive marker. No current theories of

the passive that I am aware of can predict such a phenomenon – namely, a long passive

constraint.

The definition of passive I adopt in (1) explicitly states that, in passives, the external

argument is prevented from being an argument of Voice. However, the external argument

variable in (23a) is not bound but saturated, making *Lisi* an argument of the lower Voice. This

directly contradicts the definition of passives. The following difference in grammaticality with

bei and *gei* further questions *gei*'s status as a passive marker.

(24)   a. *Huaping ziji   **bei**   sui-le.
             vase   by itself   BEI   break-LE
             *'The vase was broken by itself.'
        b. ??Huaping ziji   **gei**   sui-le.
             vase   by itself   GEI   break-LE
             [Intended:*'The vase was broken by itself.']

As shown in 2.1.2, *bei* is incompatible with *ziji* 'by itself' because of the presence of the implicit

argument. This is a prototypical feature of canonical passives. If *gei* were also a passive

morpheme like *bei*, we should expect a similar grammaticality judgment in (24b). In other

words, *gei* with *ziji* should be more unacceptable than it is. Thus, the long passive-like *gei*

construction in (23a) is not a true passive. It follows that *gei* is not a passive Voice head.

3.1.2 A non-passive, non-active Voice head

An anticausative verb lacks an external argument (including agents, animate causers, and

inanimate external causers.) It is a one-place predicate whose sole argument is the theme. Some

examples of English anticausative verbs are given below in (25).

(25)   a. The boat **sank**.
        b. The snow **melted**.
        c. The water **boiled**.

Because of the lack of an implicit external argument, anticausatives are compatible with *by itself*

modification, unlike passives, as shown in (3). Anticausatives do not assert the existence of an

agent or any kind of causer. In contrast, in short passives without a *by*-phrase, as in (26), while

the external argument is not present syntactically, passives assert its existence; that is, the

external argument is existentially bound.

(26)   a. The boat was sunk (by the enemy).
          b. The snow was melted (by the heat).
          c. The water was boiled (by the chef).

Another difference between *bei* and *gei* is their compatibility with anticausatives. Take

the simple anticausative verb *chen* 'sink' as an example:

(27)   a. chuan   chen-le.
             boat   sink-LE
             'The boat sank.'
          b. chuan   **bei**   ji-chen-le.
             boat   BEI   attack-sink-LE
             'The boat was sunk.'
             *'The boat sank.'
          c. *chuan   **bei**   chen-le.
              boat   BEI   sink-LE
          d. ?chuan   **gei**   chen-le.
              boat   GEI   sink-LE
              *'The boat was sunk.'
              ?'The boat sank.'

(27a) is a plain anticausative with the subject as the theme of *chen* 'sink.' (27b) shows a short

passive with *bei* of the same verb where the external argument is existentially bound. Crucially,

the second gloss implies that an anticausative reading is impossible with the *bei* short passive, as

it asserts that someone or something had attacked the ship and caused it to sink. The Chinese bi-

morphemic verbs discussed in 2.1 also give evidence that the event is caused. Removing the

transitive morpheme *ji* indicating the presence of an external argument in (27c) makes the verb

incompatible with *bei*. Thus, *bei* can never get an anticausative reading. *Gei*, however, allows the

anticausative reading. As shown in (23b), *gei* is ungrammatical with a transitive verb like *da* 'hit' without syntactically realizing the external argument (the long passive constraint). Since in (27b) the short passive with *bei* is much more acceptable than with *gei* (23b), they must be two different constructions. Because the verb in (27d) is anticausative, and *gei* fails to indicate a passive reading, I argue that *gei* is compatible with anticausatives, unlike *bei*. The fact that the *bei* short passive requires the transitive morpheme *ji* while *gei* does not, and that *gei* with just the resultative morpheme *chen* is more acceptable than *bei,* also supports the argument that *gei* is not a true passive marker. To further illustrate the point that *gei* is allowed in other non-active constructions, I give an example of a pure unaccusative verb. A pure unaccusative verb is a special kind of anticausative verb. It cannot be transitivized or passivized like other anticausative verbs because it lacks immediate external causation. Such verbs in English include *die*, *fall*, and *bloom.* As expected, *bei* is not allowed with any unaccusative verbs.

(28)   a. Zhangsan   si-le.
               Zhangsan   die-LE
               'Zhangsan died.'
           b.*Zhangsan   **bei**   si-le.
               Zhangsan   BEI   die-LE
           c. ?Zhangsan   **gei**   si-le.
               Zhangsan   GEI   die-LE
               'Zhangsan died.'

Similarly, though not perfect, *gei* with *si* 'die' is more acceptable than *bei*.

So far, the data show that *gei* as a function verb can work in long-passive-like constructions, pure unaccusatives, and other anticausatives. *Gei*'s function can be what all these constructions have in common. Canonical passives reduce the valency of verbs by one. In contrast, in all three cases where *gei* is allowed, *gei* does not act on the valency of the verb. That is, *bei* is valency reducing while *gei* is valency neutral. These constructions are all non-active. Non-active Voice refers to constructions in which the Voice head does not project an external

argument (Kratzer 1996). In both the pure unaccusative and the anticausative with *gei*, the external argument is not only not projected syntactically, but also not existentially bound. In *gei*'s long-passive-like construction, whose structure is discussed in 3.3, the external argument is also dethematized, meaning not an argument of Voice. Thus, I propose that *gei* is a valency-neutral, non-passive, non-active Voice head.

3.2 The "long-passive constraint" and transitivity

3.2.1 Sensitivity of gei to transitivity

Gei in the long-passive-like construction is not compatible with all two-place predicates. The sentence in (29), for example, is only compatible with *bei* and not with *gei*.

(29)　　　*ta　de　cuowu　**gei**　women　yuanliang-le.
　　　　　he　DE　mistake　GEI　us　　forgive-LE
　　　　　'His mistake was forgiven by us.'　　　　　Sanui & Xu (1990)

Recall from (23) that *gei* is ungrammatical in a short-passive-like construction. In (29), the external argument *women* 'us' is syntactically realized, yet the sentence is still ungrammatical. This reduction in grammaticality when we change the verbal predicate from *da* 'hit' to *yuanliang* 'forgive' is due to *gei*'s sensitivity to the transitivity of the lexical verb. Hopper & Thompson (1980) describe the level of transitivity of verbs as the degree of the effectiveness or intensity with which the action is transferred from one participant to another. They use a range of parameters to measure transitivity, three of which are relevant to my discussion of *gei*.

  i) Agency: As Hopper & Thompson indicate, it is uncontroversial that participants high in Agency can affect a transfer of an action in a way that those low in Agency cannot. Assuming that *gei* is only compatible with verbs of a higher degree transitivity (29), we can predict that *gei*

with a non-volitional external causer or an instrument is degraded. The following examples

illustrate this contrast. When the external argument is inanimate and thus cannot be a volitional

agent, the *gei* construction is ungrammatical (30b). Such an instrument or external causer is

perfectly compatible with *bei*, as evidenced by (30c):

(30)   a. chuanghu   **gei**   xiaohai   za-sui-le.
        window   GEI   child   smash-break-LE
        'The window was broken by the child.'
    b. *chuanghu   **gei**   zuqiu   za-sui-le.
        window   GEI   soccer ball   smash-break-LE
        'The window was broken by the soccer ball.'
    c. chuanghu   **bei**   zuqiu   za-sui-le.
        window   BEI   soccer ball   smash-break-LE
        'The window was broken with the soccer ball.'

A natural force is commonly perceived as a non-volitional external causer. *Bei* is not only

compatible with an instrument, such as a soccer ball, but also allows a natural force in the

underlying subject position (31a).

(31)   a. bing   **bei**   taiyang   ronghua-le.
        ice   BEI   sun   melt-LE
        'The ice was melted by the sun.'
    b. ?bing   **gei**   taiyang   ronghua-le.
        ice   GEI   sun   melt-LE
        'The ice was melted by the sun.'

Because *gei* requires a high transitivity verb and a genuine agent is usually the subject of such

verbs, the *gei* construction forces a volitional reading when the external argument is natural

force. However, the sun cannot volitionally melt the ice. Thus, (31b) is pragmatically

infelicitous.

  ii) Kinesis: Actions can be transferred from one participant to another in a way that states

cannot (Hopper & Thompson, 1980). In English, experiencer verbs like *love* and *hate* cannot be

passivized since the experiencer of *love* or *hate* is merely the holder of a state. In Chinese,

similarly, *ai* 'love' and *hen* 'hate' are hardly acceptable when passivized using *bei*. However,

with verbs that have a slightly higher transitivity, i.e., verbs that are neither strictly action verbs nor experiencer verbs, like *yuanliang* 'forgive' (29) and *hushi* 'ignore' (32), the *bei* passive is fine, but not the analogous form with *gei*.

(32)   a. wo **bei**   ta   hushi-le.
             I   BEI   him   ignore-LE
             'I was ignored by him.'
      b. *wo **gei**   ta   hushi-le.
            I   GEI   him   ignore-LE

Though verbs like *yuanliang* 'forgive' and *hushi* 'ignore' have a slightly higher transitivity than true experiencer verbs, they are still much lower on the transitivity spectrum than action verbs. *Bei,* as the canonical passive Voice head in Chinese, has no requirement for the level of transitivity of the verb, thus is grammatical with *hushi* 'ignore' (31a). *Gei*, on the other hand, is only compatible with action verbs like *da* 'hit' (23a), but not with verbs of low transitivity, illustrated above in (31b).

  iii) Individuation of the Object: In examples (30b) and (31b), the underlying objects *chuanghu* 'window' and *bing* 'ice' are both inanimate nouns. According to Hopper & Thompson (1980), if the object of a verb is highly individuated, i.e. it is a proper, animate, concrete, singular, definite or count noun, the object is often more completely affected, and the action can be more effectively transferred, thereby producing higher transitivity. It appears that if the underlying object, or the argument introduced by *gei*, is an individuated noun, the transitivity of the lexical verb is sufficient for *gei*, regardless of the agentivity of the underlying subject. An example of this is given below in (33).

(33)   a. ta   **gei**   che   zhuang-si-le.
            he   GEI   car   hit-die-LE
            'He was killed in a car accident.'   (Xu, 1994)

In this case, even though the causer 'car' is not a volitional agent, the underlying object *ta* 'he' is a definite, singular, animate pronoun[3] that is individuated. This implies that the event is effectively transferred and highly transitive and, therefore, is compatible with *gei*.

3.2.2 Transitivity and gei's function

In 3.1, I have shown that in terms of non-active constructions, *gei* is compatible with long-passive-like constructions, anticausatives, and pure unaccusatives. Here, I argue that there is a common function of *gei* in all three non-active constructions: argument rearrangement. From a functionalist perspective, the function of *gei* in the long-passive-like construction is similar to topicalization where the topic specifies the domain within which the predication holds and serves as the center of attention in the sentence (Li & Thompson 1976). Chinese, among many other isolating languages, is a Topic-prominent language. Peltomaa (2006) even argues that Chinese lacks a true "syntactic passive" that involves agent demotion and theme promotion, but instead has a "pragmatic passive" that changes the pragmatic functions (such as the function of topic or focus) of the semantic roles. With *gei* projecting the underlying object in the surface subject position in the long-passive-like construction, it is placing the underlying object in the topic position, shifting the center of attention in the sentence. The discourse function of *gei* is consistent with *gei*'s requirement of high transitivity verbs. Specifically, the primary characteristic of a topic is that it is definite (Li & Thompson, 1976). As illustrated in the previous sub-section, a highly individuated object is one of the features and diagnostics of high transitivity verbs. If *gei*'s function is truly close to topicalization, it is not surprising that *gei* prioritizes the

---

[3] *Ta* in Chinese is syncretic among the masculine, feminine, and neuter third person singular pronouns. The only grammatical interpretations of *ta* are the masculine and feminine animate pronouns. This further illustrates that *gei* requires a highly individuated (underlying) object, thus a high transitivity verb.

definiteness of the underlying object (or the surface subject) over the agency of the external argument. It is also plausible that because of *gei*'s discourse function, there is simply more communicative value for argument rearrangement when it involves a sharper contrast between the causer and the affected entity, i.e. a verb with higher transitivity. As a passive Voice head, *bei* also has the function of foregrounding the underlying object. But because of *bei*'s intrinsically different feature as a genuine passive Voice head, it produces only passives, and no other non-active constructions.

3.3 The Structure of *gei*'s long-passive-like construction

Similar to *bei* in the long passive, I posit that *gei* has the same argument structure. Since the surface subject in *gei*'s long-passive-like constructions is also interpreted as the underlying theme of the lexical verb, the biclausal null operator *tough*-construction with A'-movement is the only way to relate the two positions. *Gei* projects the surface subject as its specifier, that is, the surface subject is also base generated. And it likewise selects a CP complement.

The long *bei* passive and the long-passive-like *gei* construction have identical syntactic structure. However, *bei* and *gei* in these cases differ in assigning different theta roles to the surface subject. The surface subject in *gei*'s passive-like construction has an adverse affected reading, whereas the subject in *bei* passives is neutral in interpretation. Semantically, the interpretation of *gei*'s passive-like construction is similar to the English *get*-passive (Huang 2013) where the subject is usually associated with an adverse event.

(34) a. Mary's wallet was stolen.
     b. Mary's wallet got stolen.

There is a semantic difference between (34a) and (34b). The *be*-passive is a proposition that states an event. The *get*-passive gives an additional reading that the event has an adverse effect on Mary, the owner of the wallet. A similar semantic difference exists between *bei* and *gei*.

(35)   a. wo   **bei**   laoshi   jiao-zou-le.
             I   BEI   teacher   call-away-LE
             'I was called by my teacher.'
      b. wo   **gei**   laoshi   jiao-zou-le.
             I   GEI   teacher   call-away-LE
             'I was called by my teacher (because something bad happened.)'

The sentences in (35) are both potential answers to the question 'Where were you?' With *bei*, example (35a) again simply states the fact that I was away because my teacher called me. If someone answers with *gei*, as in (35b), people will assume that the teacher called me because I was in trouble. The subtle adversative reading on the subject or the affectee of the event in *gei*'s passive-like-construction needs to be accounted for in a way that distinguishes this construction from the *bei* passive. I propose that as an argument of the non-Active Voice head *gei*, the surface subject is assigned a malefactive theta role instead of a neutral experiencer theta role. Therefore, *gei*'s lexical specification is that it projects a malefactive argument as its subject and selects a CP complement. Note crucially that the subject and the underlying theme are two separate arguments, as in the long *bei* passive, and are connected through the null operator construction.

4 Non-Active Voice: Typology

4.1 Typology of Voice

Schäfer (2017) proposes an updated typology of Voice where he states that syntactic and

semantic transitivity, as defined in (36), are distinguished from each other on the basis of the

feature specification of their respective Voice heads.

(36)   a. Syntactic transitivity: Voice has a D-feature to be checked by a DP in its specifier.
       b. Semantic transitivity: Voice can introduce a semantic argument either as a variable
            to be saturated later on or as existentially bound.

(Schäfer 2017: 143)

Based on the different feature combinations of syntactic and semantic transitivity, Schäfer

proposes a universal set of six Voice heads. The semantic function of the canonical

Romance/Germanic-type passive Voice is given in (37).

(37)   Passive Voice (English): $\{\lambda e\exists x[agent(e, x)], \emptyset\}$

The English passive Voice lacks a D-feature, and thus the Voice head does not project an

argument. In canonical English passives, the agent variable is existentially bound, meaning that

the variable is not saturated by an argument of the verb, though it is possible to introduce the

agent with an adjunctive *by*-phrase.

Now, consider the canonical long *bei* passives. *Bei* is a true non-active Voice head

because the agent fails to appear as an argument of the highest Voice head, in the sense of

Kratzer (1996), where active Voice projects an argument (the external argument) in the leftmost

periphery of Voice. The presence of the higher VoiceP in the *bei* passive disqualifies the subject

of the lower functional head as a thematic external argument. The underlying object is then the

argument of *bei* and is externally merged in its specifier position. Example (11c), repeated below

as (38), demonstrates that *bei* has a D-feature that must be checked, that is, *bei* is necessarily

argument projecting. Since in the *gei* long-passive-like construction, *gei* also projects an

argument in the specifier position and the agent likewise fails to appear as a thematic external

argument in the peripheral Spec,VoiceP, I propose that passive Voice is one kind of Non-Active

Voice, and that the biclausal null operator structure in (16) is the single general syntactic

structure for Non-Active Voice in Chinese. Therefore, following Schäfer's (2017) typology of

Voice, the formal semantic function of Non-Active Voice in Mandarin is:

(38)   ***bei**   Lisi   tou-le   qian.
             BEI   Lisi   steal-LE money

(39)   Non-Active Voice (Chinese): $\{\lambda e \exists x[\text{agent}(e, x)], D\}$

Kallulli (2007) argues that passives and anticausatives are not formed in different modules of the

grammar. Instead, the passive/anticausative distinction hinges entirely on the nature of the

features of v^0. Passive Voice in Chinese is a subset of Non–Active Voice. *Bei* and *gei* are simply

two different realizations of Non-Active Voice with different functions and lexical

specifications. In this case, *bei* and *gei* assign different theta roles to their arguments: experiencer

and malefactive. Since passive Voice is one kind of Non-Active Voice, it is expected that *bei* is

allowed strictly in environments that are cross-linguistically compatible with the passive (e.g.,

agentive transitives), while *gei* is compatible with other kinds of non-active constructions like

anticausatives and pure unaccusatives, where *bei* does not occur.

      A comparison of the English passive Voice (37) and the Chinese Non-Active Voice (39)

reveals that Non-Active Voice heads in Chinese require an argument in the specifier position,

thus the D-feature. Note that even though the agent variable is existentially bound in both

functions, the notation has different syntactic realizations in the two cases. Semantically, both

refer to a dethematized external argument. Syntactically, existentially binding in the English-type

passive means that the external argument is removed from the VP, while in Chinese non-active

constructions, it means that the "external argument" is in a lower VoiceP and, thus, does not act as a true thematic external argument. In other words, dethematizing the external argument in Chinese and English yields different syntactic structures, in the case of Chinese, a rather novel structure cross-linguistically.

4.2 Distribution of *bei* and *gei*

While *bei* and *gei* share the same syntactic structure in the passive and passive-like-construction, they do not share the same distribution. As I have shown in this thesis, *bei* is the canonical passive Voice head in Mandarin, while *gei* is a more general Non-Active Voice head. *Gei* can participate in a broader range of non-active constructions, but *bei* is strictly used in passives. Though the structure of the *bei* passive is distinct from its English counterpart, both allow instruments as the external argument, as in (30c), repeated here in (40):

(40)　　　chuanghu　　**bei**　　zuqiu　　　za-sui-le.
　　　　　window　　　BEI　　soccer ball　smash-break-LE
　　　　　'The window was broken with the soccer ball.'

Other than instruments, the *bei* passive also allows natural force, inanimate external causers, and any other type of agent, broadly construed, that can set an event in motion. In terms of the level of transitivity of the lexical verb, *bei* again shows no restriction, unlike *gei*. Verbs that are neither strictly action verbs nor experiencer verbs, like *yuanliang* 'forgive' and *hushi* 'ignore', mentioned in 3.2.1, are compatible with the *bei* passive but not with *gei*. Lastly, in the syntactic structure that *bei* and *gei* share, the biclausal null operator construction, they assign different theta roles to their arguments. The subject in the *bei* passive is an experiencer and the event has a neutral effect on the subject argument. The subject in the *gei* passive-like construction is a malefactive which is adversely affected by the event. The distributional differences between the

two Non-Active Voice heads *bei* and *gei*, as well as the English *be*-passive, are summarized in

the table below.

Table 1. Distribution of Non-Active Voice

	bei	*gei*	English *be*-passive
long passives/ long-passive-like constructions	✓	✓	✓
short passives	✓	✕	✓
anticausatives	✕	✓	✕
pure unaccusatives	✕	✓	✕
θ-role of its argument	experiencer	malefactive	lacks the D-feature
restriction of the type of external argument	✕	✓	✕
requirement of high transitivity verbs	✕	✓	✕

5 Conclusion

This thesis offers a typologically divergent view of passivization, namely, one in which the surface subject is base generated as an argument of the passive Voice head (*bei*), which means that the relation between the surface subject and the underlying object is one not mediated by movement. Rather, the long passive involves a biclausal null operator construction where *bei* assigns an experiencer theta role to its subject argument and selects a CP complement that contains the lexical predicate and the agent. Thus, this thesis argues in favor of a definition of passives that involves only agent demotion (Bruening 2013).

I identified a more general category of Non-Active Voice with a base structure in Chinese. Both the passive Voice head (*bei*) and the more general Non-Active Voice head (*gei*) I analyzed in this thesis are two-place predicates with the same argument structure in the long passive and the long-passive-like construction respectively. This analysis of *bei* and *gei* as predicates provides independent evidence for Kratzer, in which Voice heads are predicates and external arguments are arguments of these Voice heads (1996).

While Chinese *bei* passives work like other passives where the external argument is existentially bound, the structural description of existentially binding is different from what Bruening (2013) proposed. The external argument in the Chinese long passive remains in situ and is not realized as an adjunct in a *by*-phrase.

However, several open questions remain: There are other Non-Active Voice heads in Chinese, like *jiao* and *rang*. Do they have the same argument structure and behave the same way as *gei*? If not, why? How do we account for the ambiguity in *gei*'s long-passive-like construction? What is *gei*'s argument structure in anticausatives and pure unaccusatives? Why is

it different from its argument structure in the passive-like construction? All the questions above can be potential topics for further research in Non-Active Voice in Chinese.

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