

## **You Again: How Is Its Ambiguity Derived?**

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**Abstract.** It is well-known that an English sentence with a complex predicate modified by *again* displays a repetitive vs. restitutive ambiguity. Like English *again*, Chinese *you* ‘again’ modifying a resultative verb compound also exhibits a repetitive vs. restitutive ambiguity. However, Chinese differs from English in that the position of *you* ‘again’ is relatively fixed: it can only occur preverbally but not postverbally. This study examines how the ambiguity of Chinese *you* is derived. Investigating the scope interaction between *you* ‘again’ and an indefinite object, I argue that the ambiguity of *you* ‘again’ is structural but not lexical. I further propose that *you* ‘again’ moves overtly as a last resort to satisfy a PF requirement specific to Chinese.

**Keywords:** ambiguity, restitutive *again*, scope, movement

### **1 Introduction**

It is well-known that a sentence with a complex predicate modified by *again* (1) is ambiguous between a repetitive reading and a restitutive reading. The former presupposes that the subject has previously performed the action denoted by the VP (1a). The latter presupposes that the result state has held before. It either held from the very beginning (1b) or came into being as a result of someone else performing the action (1c).

- (1) Sally painted the wall white again.  
a. Sally had painted the wall white before.  
b. The wall had been white before.  
c. Someone else other than Sally painted the wall white before.

There exist different approaches to account for the ambiguity of English *again*: structural and lexical. The structural approach suggests that the ambiguity arises because (1) has different possible syntactic structures (see von Stechow, 1995, 1996; among others). The lexical approach instead argues that the ambiguity has nothing to do with the structure, but is a result of *again* having different meanings (e.g. Dowty, 1979; Fabricius-Hansen, 2001; Jäger & Blutner, 2000).

Most of the previous studies focus on English *again* and German *wieder*, which can occur in different positions of a sentence. In this paper, I examine *you* ‘again’ in Mandarin Chinese. Like English, Chinese is also a head-initial language. Neverthe-

less, Chinese differs from English in that the position of *you* ‘again’ is relatively fixed: it can only occur preverbally but not postverbally (2).

- (2) ta    you        tu-hong   le        (\*you)   na-ge   beike    (\*you).  
       she again   paint-red Asp   (again) that-CL shell    (again).  
       She painted two of the shells red again.

Like English *again*, however, Chinese *you* ‘again’ exhibits an ambiguity between a repetitive and a restitutive reading, which raises the following question: How do we account for the ambiguity? In this paper I argue that despite the preverbal position of *you* ‘again’, its ambiguity is structural rather than lexical. The crucial evidence comes from the scope interaction between *you* ‘again’ and an indefinite object.

## 2 Previous Analyses of English *again*

There are two main approaches to account for the ambiguity of English *again* in previous literature: structural analysis and lexical analyses.<sup>1</sup>

### 2.1 The Structural Analysis

Under the structural analysis (see von Stechow, 1995, 1996, among others), *again* always denotes repetition, as shown in (3). It introduces a presupposition that the proposition (a set of events) expressed by P was already true of another event *e*’.

- (3) Let P be a property of eventualities and let *e* be an eventuality.  
       [[again]](P)(*e*) is defined only if  $\exists e' [P(e')=1 \& e' < e]$ .  
       Where defined, [[again]](P)(*e*)=1 iff  $P(e)=1$ . (adapted from von Stechow, 1996)

A complex predicate like *painted the wall white* in (4a) can be decomposed into an agentive event (wall painting) and a resultative state (the wall becoming white). The LF of (4a) is presented in (4b), in which the object NP *the wall* raises to semantically bind the empty pronominal (PRO) subject of AP.

- (4) a. Sally painted the wall white.  
       b. [the wall 1    [<sub>VP</sub> Sally [<sub>v</sub> [<sub>VP</sub> *t*<sub>1</sub> paint        [<sub>AP</sub> PRO<sub>1</sub> white]]]] ]

<sup>1</sup> There exists a naïve pragmatic analysis to analyze the ambiguity as well: We can treat the repetitive reading as a special case of the restitutive reading, as the former entails the latter. As far as I know, previous studies did not discuss the naïve pragmatic approach. However, Beck (2006) and Klein (2001) proposed a more complicated pragmatic account to explain the effect that focus has on the ambiguity of *again*.

Sentence-final *again* can potentially adjoin to different positions in (4b), hence the ambiguity of *Sally painted the wall white again*. If *again* adjoins to vP or higher, we get the repetitive reading that Sally has painted the wall white before. If, on the other hand, *again* adjoins to the small clause AP, the restitutive reading is derived.

## 2.2 The Lexical Analysis

Contrary to the structural analysis, which argues that there is only one *again*, a lexical analysis claims that there is more than one *again*. The idea can be traced back to Dowty (1979), who account for the ambiguity by postulating a repetitive *again*, a restitutive *again*, and some type-shifting in between.

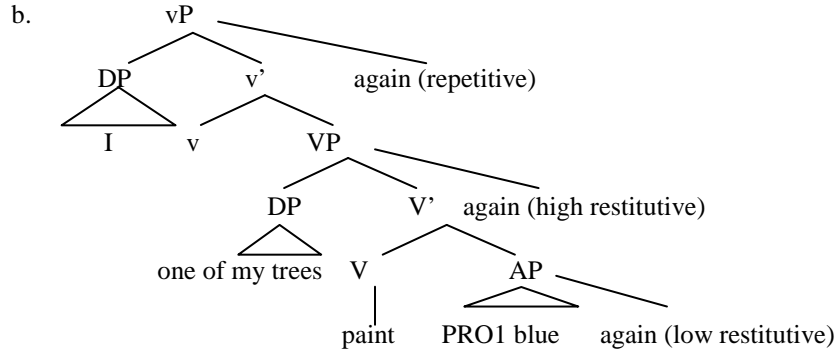
Different forms of lexical analysis have been proposed ever since. For example, Fabricius-Hansen (2001) proposes that in addition to expressing repetition, *again* can also express reversal of the direction (counterdirectional *again*), which leads to the restitutive reading.

## 2.3 Two Kinds of Restitutive Readings

So far we have been focusing on a two-way dichotomy of *again*: repetitive vs. restitutive. Notice that both scenarios in (1b) and (1c) are compatible with the restitutive reading of (1), with (1c) entailing (1b). Some researchers further argue that (1c) is a restitutive reading independent from (1b), and it is derived by adjunction of *again* to VP in (4) (Nissenbaum, 2006; Bale 2007; Dobler, 2008). (1b) and (1c) are called by Nissenbaum (2006) the low restitutive reading and the high restitutive reading, respectively.

Here I summarize Nissenbaum's (2006) argument in favor of two restitutive readings, which involves the interaction between *again* and an indefinite object. Assuming the LF in (5b), Nissenbaum (2006) makes the following predictions about possible scope readings for (5a). First of all, for a low restitutive reading (with *again* adjoined to AP), the indefinite object can never be interpreted inside the scope of *again*, because it is base generated in Spec, VP. The prediction is borne out: It is felicitous to continue Scenario A with the sentence in (6a). The usage of pronoun in (6a) forces an interpretation in which the same tree was painted blue. As a contrast, (6b) does not serve as felicitous continuation of the scenario. This is expected assuming the structural analysis of *again*: The usage of an indefinite object in (6b) forces an interpretation in which a different tree was painted blue, which cannot be derived via the structure in (5b). Although for the low restitutive reading, wide scope reading of *again* with respect to the indefinite object is not available, the indefinite object can be interpreted outside the scope of *again*. This is illustrated in (7), in which the tree I painted blue has to be previously blue simply because of the universal quantifier in the scenario. Contrary to the low restitutive reading, for a high restitutive reading, the indefinite object can be interpreted inside the scope of *again*. (8) contains a scenario in which I painted a different tree blue from someone else. And it is felicitous to continue the scenario with a sentence having *again* and an indefinite object.

- (5) a. I painted one of my trees blue again.



- (6) Scenario A: *One of my birch trees came up blue when it was a sapling; it later turned white like the rest. But I liked the idea of a blue birch tree so much that...*

- a. I painted it blue again.  
b. #I painted one of my trees blue again.

- (7) Scenario B: *All of my birch trees were blue when they were saplings; they later turned white like birch trees are supposed to be. But I liked the idea of a blue birch tree so much that...*

I painted one of my trees blue again.

- (8) Scenario C: *One of my birch trees had been painted blue when I moved in. It later died and had to be cut down. But I liked the idea of a blue birch tree so much that...*

I painted one of my trees blue again.

The scope facts is compatible with the structural analysis of *again* and challenge the lexical analyses. Under a lexicalist account, to the extent the facts may be described, there is no principled reason why only the low restitutive reading with wide scope of *again* is absent.

### 3 The Puzzle: the Ambiguity of *You* in Mandarin Chinese

Like English, a Chinese sentence with a complex predicate modified by *you* 'again' (2) is compatible with all three scenarios in (1). Different from English, *you* 'again' in Chinese has a restricted distribution: it can only occur preverbally (2).

The structural analysis cannot be extended directly to Chinese. On the assumption that the complex predicate ends up in *v*, the preverbal *you* 'again' would appear to adjoin to *vP* or higher, thus only the repetitive reading is expected.

The Chinese *ba*-construction makes the ambiguity even more puzzling. A *ba*-sentence with *you* preceding *ba* also displays a three-way ambiguity (9). It is generally assumed in the literature that *ba* is an overt realization of a recursive small *v* (see Huang, Li & Li, 2009). When *you* precedes *ba*, it must adjoin to *vP* or even higher, thus the restitutive reading becomes unexpected.

- (9) Zhangsan you ba men da-kai le.  
 Zhangsan again BA door hit-open Asp.  
 Zhangsan opened the door again. (repetitive, high restitutive, low restitutive)

Following Nissenbaum (2006), I examine how the ambiguity is derived by investigating the scope interaction between *you* ‘again’ and an indefinite object.

#### 4 Scope Interaction between *You* and a Quantifier

Since *you* ‘again’ yields a three-way ambiguity, when it interacts with another scope-bearing element, such as an indefinite object, there are altogether six logical possibilities. Native speakers were presented with scenarios for each of these possibilities and were asked to judge whether bare sentences and *ba*-constructions with *you* were felicitous. The judgment is summarized in Table 1: All readings are available except the low restitutive reading with *you* ‘again’ taking wide scope.

**Table 1.** Scope between *you* ‘again’ and an indefinite object in Chinese

Low restitutive reading	$\exists > \text{you ‘again’}$	$\# \text{you ‘again’} > \exists$
High restitutive reading	$\exists > \text{you ‘again’}$	$\text{you ‘again’} > \exists$
Repetitive reading	$\exists > \text{you ‘again’}$	$\text{you ‘again’} > \exists$

For expository convenience, I focus on the following three readings: a) low restitutive reading with *you* taking narrow scope; b) low restitutive reading with *you* taking wide scope; c) high restitutive reading with *you* taking wide scope.

First of all, when the low restitutive reading is intended, the indefinite object can be interpreted outside the presupposition of *you* ‘again’, i.e. the object in the presupposition and assertion can be the same (10)-(11). The *ba*-construction has the same interpretation as its corresponding bare sentence.

- (10) Context: *Lisa had a bunch of red shells. Unfortunately after a while they all got very dusty and the redness faded. In need of two red shells to decorate her Christmas tree, ...*

- a. ta you tu-hong le qizhong liang-ge beike.<sup>2</sup>  
 she again paint-red Asp among two-CL shell.

<sup>2</sup> The test sentences in (10) and (11) involve a partitive marker *qizhong* ‘among’. As a matter of fact, native speakers were asked to judge sentences either with or without a partitive marker for all the scenarios. It turned out when *you* ‘again’ takes wider scope than the indefinite object, speakers tended to prefer sentences without partitive markers. On the other hand, they preferred sentences with partitive markers when *you* ‘again’ takes narrow scope. For expository convenience, when concentrating on scenarios in which *you* takes narrow scope, I only present the judgment of sentences with partitive markers; when focusing on scenarios in which *you* takes wide scope, I only present the judgment of sentences without partitive markers.

- b. ta you ba qizhong liang-ge beike tu-hong le.  
 she again BA among two-CL shell paint-red Asp.  
 She painted two of the shells red again.

(11) Context: *John ordered ten pocket watches. Unfortunately, all of them had always been open due to a manufacturing error. Yesterday he got all his watches fixed and closed them for the first time. Today, ...*

- a. ta you da-kai le qizhong yi-kuai huaibiao.  
 He again hit-open Asp among one-CL pocket-watch.  
 b. ta you ba qizhong yi-kuai huaibiao da-kai le.  
 He again BA among one-CL pocket-watch hit-open Asp.  
 He opened one of his pocket watches again.

For the low restitutive reading, although the indefinite object can take wide scope with respect to *you* ‘again’, but not vice versa. In other words, when a low restitutive reading is intended, the object cannot be interpreted within the presupposition of *you* ‘again’. A number of my informants found the use of *you* ‘again’ odd in scenarios like (12) and (13), especially compared with (10) and (11).

(12) Context: *Zhangsan went to the beach and collected a lot of white shells and two red shells. When his wife cleaned the house, she accidentally broke the two red shells. Worried that Zhangsan would notice the mishap, ...*<sup>3</sup>

- a. #ta you tu-hong le liang-ge beike.  
 she again paint-red Asp two-CL shell.  
 b. #ta you ba liang-ge beike tu-hong le.  
 she again BA two-CL shell paint-red Asp.  
 She painted two shells red again.

(13) Context: *John ordered many pocket watches. Unfortunately, two of them had always been open due to a manufacturing error. Yesterday he got them fixed and they closed for the first time. Today...*<sup>4</sup>

- a. #ta you da-kai le yi-kuai huaibiao.  
 he again hit-open Asp one-CL pocket-watch.  
 b. #ta you ba yi-kuai huaibiao da-kai le.  
 he again BA one-CL pocket-watch hit-open Asp.  
 He opened a pocket watch again.

The reason why *you* ‘again’ sounds infelicitous in (12) and (13) is not because it cannot take wide scope. As shown in (14) and (15), when a high restitutive reading is intended, the indefinite object can be interpreted within the presupposition of *you* ‘again’.

<sup>3</sup> The scenario is adapted from Dobler (2008).

<sup>4</sup> The scenario is adapted from Bale (2007).

(14) Context: *John and Jane had some white shells. Since they needed two red shells to decorate their Christmas tree, John painted two shells red. Unfortunately, Jane accidentally broke the two red shells that John just painted. Therefore, ...*

- a. ta        you        tu-hong le        liang-ge beike.  
      she        again    paint-red Asp    two-CL shell.  
 b. ta        you        ba        liang-ge beike    tu-hong        le.  
      She        again    BA        two-CL shell    paint-red        Asp  
      She painted two shells red again.

(15) Context: *Jane and John bought five pocket watches. Jane picked out one pocket watch, opened it and closed it. Later John needed to check the time. He wanted to open the watch that Jane opened just now, but he couldn't find it. Therefore, ...*

- a. ta        you        da-kai le        yi-kuai huaibiao.  
      He        again    hit-open Asp    one-CL pocket-watch.  
 b. ta        you        ba        yi-kuai huaibiao        da-kai        le.  
      He        again    BA        one-CL pocket-watch    hit-open        Asp.  
      He opened a pocket watch again.

The scope facts suggest that syntactic structure is playing a role in the ambiguity of *you*. Let us take (16) as an example, whose LF is presented in (17). The scope facts would fall in place if *you* 'again' can adjoin to some lower projections such as VP or XP in (17). If *you* 'again' can indeed adjoin to XP, it will give rise to the low restitutive reading. As the indefinite object is base-generated in Spec, VP, it takes wider scope than *you* 'again', but not the other way around. On the other hand, if *you* 'again' can adjoin to VP, with the high restitutive reading, the indefinite object can be interpreted within the presupposition of *you* 'again'. Under a lexicalist account, to the extent the facts may be described, there is no principled reason why the low restitutive reading with the wide scope of *you* is absent.

- (16) Lisi        tu-hong        le        liang-ge beike.  
      Lisi        paint-red        Asp    two-CL shell.  
      Lisi painted two shells red.

(17) [<sub>IP</sub>... [<sub>VP</sub> Lisi v [<sub>VP</sub> two-shell 1 paint [<sub>FP</sub> F [<sub>XP</sub> PRO<sub>i</sub> red]]]]]

## 5 Analysis

Following Ernst (2004), who argues that adverbs are licensed in their base positions whenever the relevant semantic rule gives them their proper interpretation, I propose that *you* can adjoin to some lower projections in (17), such as a small clause XP or VP, which gives rise to the low restitutive reading and the high restitutive reading, respectively.

First of all, *you* can modify a small clause. This is attested by Chinese *de*-resultative constructions (18a). Following the analysis of Tang (1997), which is shown in (18b), particle *de* is base-generated in the head position of the functional projection, and incorporates to V. Then V-*de* as a whole undergoes V-to-v movement.

Since *you* ‘again’ can occur between the object *Zhangsan* and the secondary predicate *ku* ‘cry’ (18a), it has to adjoin to XP in syntax to derive the correct linear order.<sup>5</sup>

- (18) a. Lisi        da-de    Zhangsan        you        ku        le  
           Lisi        hit-de   Zhangsan        again    cry        Asp.  
           Lisi hit Zhangsan to the extent that Zhangsan cried again.  
       b. [<sub>VP</sub> Lisi v+da<sub>k</sub>-de<sub>j</sub> [<sub>VP</sub> Zhangsan<sub>i</sub> t<sub>k</sub>+t<sub>j</sub> [<sub>FP</sub> t<sub>j</sub> [**you** [<sub>XP</sub> PRO<sub>i</sub> ku le]]]

In addition to result-denoting XP, *you* can adjoin to VP in syntax. This is demonstrated by the Chinese *ba*-construction (19a). Here I follow Kuo (2009), who argues that *ba* is the head of an Applicative phrase, as illustrated in (19b).<sup>6</sup> Not only can *you* ‘again’ precede *ba* (cf. (9)), it can also occur between the *ba*-NP (the NP immediately following *ba*) and the predicate (19). To derive the correct linear order, *you* ‘again’ has to adjoin to VP in the structure.

- (19) a. wo        ba        Sara        you        da        shang    le  
           I        BA        Sara        again    hit        hurt        Asp.  
           I hit Sara so that she got hurt again.  
       b. [<sub>VP</sub> wo v+ba<sub>k</sub> [<sub>AppIP</sub> Sara<sub>i</sub> t<sub>k</sub> [**you** [<sub>VP</sub> t<sub>i</sub> da [<sub>XP</sub> PRO<sub>i</sub> shang le]] ] ]]

Furthermore, as Chinese adverbs in general occur preverbally in a bare sentence, I postulate here that there is a PF-requirement in Chinese, which requires adverbs like *you* to be preverbal.<sup>7</sup>

I propose a movement analysis of *you* ‘again’ to account for its ambiguity. In a bare sentence such as (16), when base-generated in a VP- or XP-attached position, *you* ‘again’ moves overtly as a last resort to satisfy this PF-requirement. When it gets interpreted, it undergoes LF reconstruction or semantic reconstruction (see Cresti, 1995; among others).

<sup>5</sup> In fact, it is not clear whether *you* adjoins to FP or XP. To answer this question, we need to figure out the denotation of particle *de*. The answer will not affect our analyses. For expository convenience, I assume in this paper that it adjoins to XP, which denotes the result state, and treat the functional head *de* as semantically vacuous. This is in line with the analysis which analyzes the functional head *de* as a complementizer (e.g. Wang, 2010).

<sup>6</sup> Other analyses of *ba*-constructions (for example, treating *ba* as an overt realization of a recursive *v*) are also compatible with my point here.

<sup>7</sup> It has been widely observed that there exists a restriction in Mandarin that a transitive verb with an object cannot be modified by a post-verbal manner expression (i). The verb has to be doubled (i). The PF requirement proposed here may be part of a broader (but unexplained) generalization about modifiers in Chinese resisting VP-internal surface positions, even when they are interpreted there (Jonathan Bobaljik, pc).

- (i) Wo        pa        shan        \*(pa)        de        kuai.  
       I        climb    mountain climb    DE        fast.  
       I climbed the mountain fast.



## 6 Further Arguments and Consequences

Under the movement analysis, several additional patterns follow directly. To begin with, only the surface scope reading is available when *you* precedes negation *mei* (20).

- (20) a. Context: *Zhangsan didn't clean the room last month. And...*  
           Zhe-ge yue ta you mei dasao fangjian.  
           This-CL month he again Neg clean room.  
           Again, he didn't clean the room this month.  
       b. Context: *Zhangsan cleaned the room last month. But...*  
           # the example in (20a)

Furthermore, neither high nor low restitutive reading is available when *you* 'again' immediately precedes negation (21a). In fact, to express the restitutive reading, a different lexical item *zai*, which is generally assumed to denote repetition in irrealis context, is used and it has to follow negation (21b).

- (21) Scenario: *The door was open before (either from the very beginning or got opened by someone else). Then somehow it got closed by someone other than John. John wants to open the door but he was too tired, so...*
- a. #ta you mei ba men da-kai.  
    He you NEG BA door hit-open.  
 b. ta mei zai ba men da-kai.  
    He NEG again BA door hit-open.  
    He didn't open the door again.

There exist a tradition to treat the negative particle *mei* 'not' as a type of adverb (see Chao, 1968; Li & Thompson 1981; Ernst, 1995). Assuming Tang's (1990, 2001) theory of licensing adverbials, negative particles may be licensed in an adjoined position on a par with other types of adverb in Mandarin. If this is on the right track, the above patterns follow directly from Relativized Minimality (Rizzi, 1990), a well-established syntactic constraint that bans movement of an adjunct like *you* across another adjunct.

## 7 Conclusion

In this study, I examine how the repetitive/restitutive ambiguity of *you* 'again' in Mandarin Chinese is derived. On the surface, Chinese poses a problem for the structural analysis because the adverb *you* can only be preverbal. However, the scope interaction between *you* 'again' and an indefinite object suggests that the ambiguity of *you* 'again' must be structural rather than lexical. The puzzle can be resolved if *you* 'again' moves overtly and gets reconstructed either at LF or in semantics.

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