

## Syntax-Semantics Mismatches, Focus Movement and Light Verb Syntax\*

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This article deals with some peculiar cases of syntax-semantics mismatches in Chinese. First we argue for an inner-outer dichotomy of Chinese light verbs, based on which a focus movement analysis of misplaced instruments is launched in an attempt to maintain the general topography of the *vP* periphery. For the mystery surrounding fake classifiers, we point out that there are reasons not to treat them on a par with misplaced instruments. By adopting the light verb syntax developed in Huang (2008), we propose a gerundive analysis to account for the relatively rigid nature of fake classifiers. All these lead us to the conclusion that misplaced instruments are event classifiers in disguise, whereas fake classifiers are lexicalized instruments with special quantificational properties.

Keywords: syntax-semantics mismatches, focus movement, light verb syntax, *vP* periphery, cartographic approach

### 1. Matching Syntax-Semantics Mismatches

It has been established by Huang (1994) that a cluster of phenomena collectively known as "syntax-semantics mismatches" can be derived through verb movement and reanalysis, which otherwise receives little or no explanation within the generative grammar framework. First consider the "fake possessor" construction such as (1): the expression *chi doufu* 'eat tofu' can mean 'sexually harass' when construed as an idiom, upon which reading the possessor *Zhaoma* is actually a Patient argument in disguise:<sup>1</sup>

- (1) Akiu     chi     [Zhaoma     (de) doufu].  
Akiu     eat     Zhaoma     DE     tofu  
'Akiu sexually harassed Zhaoma.'  
Lit. 'Akiu ate Zhaoma's tofu.'

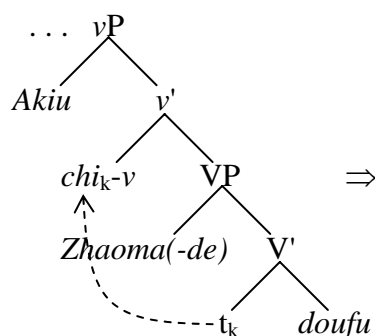
Huang proposes to derive (1) by applying verb movement in a Larsonian VP structure, as in (2a), followed by the PF reanalysis in (2b), where the Patient *Zhaoma* becomes part of the nonreferential object *doufu*:

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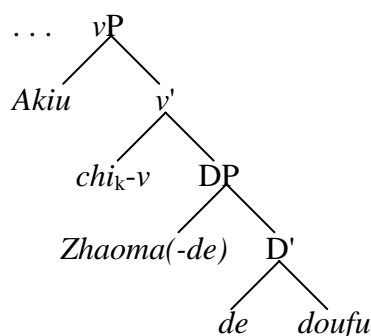
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<sup>1</sup> The abbreviations used in this article are glossed as follows: Cl: classifier; Exp: experiential aspect; Fac: factual aspect; Prf: perfective aspect; Res: resultative aspect.

(2) a. V-to-*v* raising

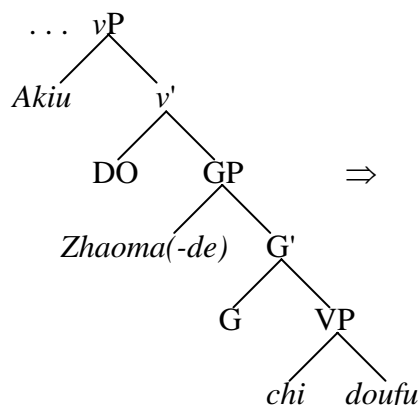


b. PF reanalysis

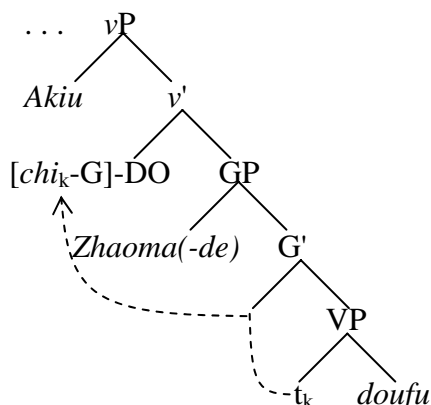


Alternatively, one may also take the underlying structure of (1) as a combination of an implicit activity light verb DO and a gerundive complement (GP) (cf. Huang 2008), as visualized in the following derivation:

(3) a. DO + GP



b. V-to-G-to-*v* raising



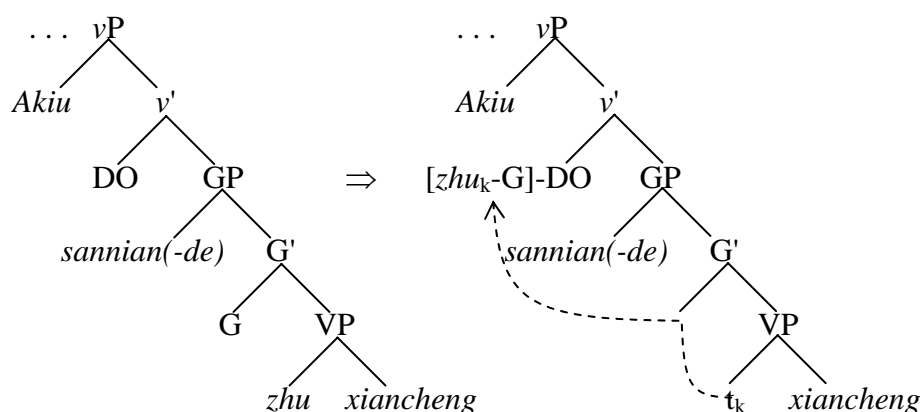
Along the same line, a similar treatment is proposed by Huang (2008) to deal with yet another peculiar case of syntax-semantics mismatch, often dubbed the "fake adjectival" construction, as shown below:

- (4) Akiu    zhu-guo    [san-nian    (de) xian-cheng].  
 Akiu    live-Exp    three-year    DE    county-town  
 'Akiu lived in town for three years.'  
 Lit. 'Akiu lived in three-year's town.'

Here the duration expression *sannian* 'three years' is a VP-adverbial by nature, which nevertheless surfaces as a modifier of the object *xiancheng* 'town', as indicated by the NP modifier marker *de*. The mystery can be solved again by positing a "DO+GP" analysis, as illustrated by the following derivation (here we omit the derivation of the tense-aspectual construal of *-guo*, which is irrelevant to our discussion here):

(5) a. DO+GP

b. V-to-G-to-*v* raising



Here, with the main verb *zhu* 'live' raising all the way to DO (and eventually joining the experiential aspect *-guo* in AspP above), the duration phrase in the specifier position of GP looks just like an adjectival modifier. This, of course, is only an illusion.

However, there are still some residual cases which do not fall directly under the above characterization. One typical example comes from a merger of frequency and instrumental expressions, as in (6a-c):

- (6) a. Zhaoma da-le Akiu [liang **bazhang**].  
 Zhaoma hit-Prf Akiu two palm  
 'Zhaoma slapped Akiu twice with her palm.'  
 Lit. 'Zhaoma hit Akiu two palms.'
- b. Wanghu ti-le Xiaodi [yi **jiao**].  
 Wanghu kick-Prf Xiaodi one foot  
 'Wanghu kicked Xiaodi once with his foot.'  
 Lit. 'Wanghu kicked Xiaodi one foot.'
- c. Zhaoma da-le Akiu [liang **gun**].  
 Zhaoma hit-Prf Akiu two staff  
 'Zhaoma hit Akiu twice with a staff.'  
 Lit. 'Zhaoma hit Akiu two staffs.'

The problem here is that an instrument appears only higher up in the peripheral area of vP (cf. Tsai 2008a), and there is no obvious way to incorporate it into an indefinite frequency phrase in an inner adjunct position of the lower VP shell.<sup>2</sup>

Strangely enough, instruments are also found in the classifier position of an object, as exemplified below:

- (7) zhexie ren da-le [yi-**zui** hao qiu].  
 these people play-Prf one-mouth nice ball  
 Lit. 'These people played a mouthful of nice ball games.'

A more sensible translation of (7) would be 'these people played a nice ball game just by

<sup>2</sup> A reviewer noted that the slapping event in (6a) seems to involve an implicit location 'on the face', and that it is impossible to use the sentence when a body part other than a face is hit. This observation, however, does not apply to (6b,c), where the instruments are *jiao* 'foot' and *gun* 'staff' respectively, and no specific location is dictated by either construal. We therefore consider the locative meaning part of the lexical semantics of *da* ... *bazhang* 'hit ... palm'.

talking about it with their mouths.' This usage again seems impossible for an instrument such as *zui* 'mouth', which is supposed to merge to the edge of *vP*.

The apparent syntax-semantics mismatches may thus present difficulties for building a comprehensive topography of Chinese *vP* structure. The gist of this paper is to explore the above issues in terms of light verb syntax from the vantage point of the *vP* periphery, whose locus we envision to be a focus projection for hosting various syntactic construals such as verb copying, VP-fronting and object shift (cf. Belletti 2004; Tsai 2008b, 2011). Our goal is therefore to match the mismatches in a principled way, mainly through verb movement and PF reanalysis within the framework of generative grammar. In section 2, we develop a version of light verb syntax with an inner-outer dichotomy. Section 3 addresses the mystery surrounding the misplaced instruments in (6a-c), and provides a syntactic solution through focus movement and PF reanalysis. In section 4, we deal with fake classifier constructions such as (7), shifting back to the classic gerundive analysis. Section 5 continues to explore a variety of interesting issues associated with both mismatch cases, while section 6 concludes the paper.

## 2. Inner Light Verbs vs. Outer Light Verbs

In the seminal work of Huang (1994, 1997), it has been proposed that syntax-semantics mismatches like (8a) can be resolved by analyzing its underlying structure as (8b), where there is an implicit eventuality predicate CAUSE taking an individual and an event as its external and internal arguments respectively (also cf. Gu 2002):

- (8) a. na-ba dao qie-de wo zhi maohan.  
that-Cl knife cut-Res I continuously sweat  
'That knife made me cut such that I sweated continuously.'
- b. [na-ba dao] CAUSE [wo qie-de zhi maohan].  
that-Cl knife I cut-Res continuously sweat  
'That knife made me cut such that I sweated continuously.'
- c. na-ba dao [qie-de]<sub>k</sub>+CAUSE wo t<sub>k</sub> zhi maohan.  
that-Cl knife cut-Res I continuously sweat  
'That knife made me cut such that I sweated continuously.'

As illustrated in (8c), (8a) is derived by raising the inflected verb *qie-de* 'cut-Res' to CAUSE, which is phonologically defective and needs a verb to cling upon. This treatment receives additional support from the fact that there is an overt counterpart of CAUSE (i.e., *rang* 'make') in exactly the same base configuration, as exemplified below:

- (9) na-ba dao rang wo qie-de zhi maohan.  
that-Cl knife cause I cut-Res continuously sweat  
'That knife made me cut such that I sweated continuously.'

There is yet another type of light verb which involves various applicative construals associated with dynamic properties, e.g., instrumental, locative, and benefactive (see Lin 2001; Feng 2003, 2005, among others). For the purpose of this paper, we will focus on the instrumental construal such as (10a):

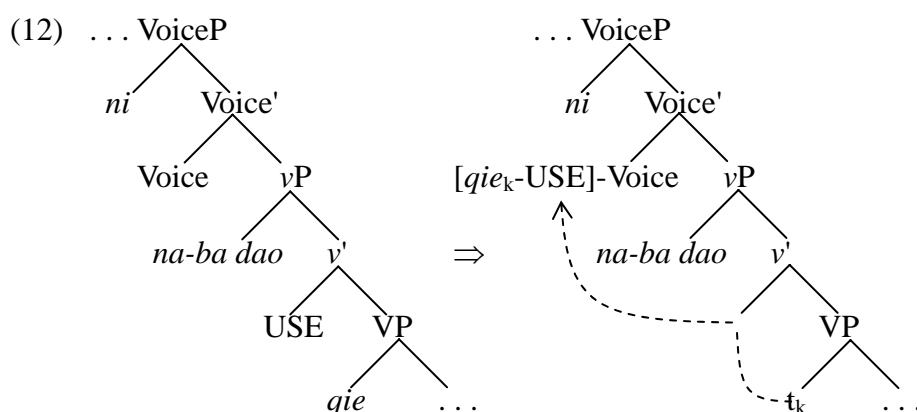
- (10) a. ni qie na-ba dao, wo qie zhe-ba dao.  
you cut that-Cl knife I cut this-Cl knife  
'You (will) cut with that knife, and I (will) cut with this knife.'

- b.    ni    USE na-ba    dao    qie, wo USE zhe-ba    dao    qie.  
       you        that-Cl knife    cut I            this-Cl knife    cut.

(10a) arguably derives from (10b) by raising the verb *qie* 'cut' to an implicit light verb USE, which also has an overt counterpart in (11), i.e., *yong* 'use':

- (11)    ni    yong    na-ba    dao    qie,  
       you use        that-Cl knife    cut,  
       wo yong    zhe-ba    dao    qie.  
       I    use        this-Cl knife    cut  
       'You (will) cut with that knife, and I (will) cut with this knife.'

The relevant derivation is illustrated in the diagram below:



As observed in Tsai (2007, 2011), the eventuality predicate CAUSE arguably heads a functional projection in the left periphery, while the instrumental predicate USE may well head a semi-lexical projection in the vP periphery. We may therefore call the former an outer light verb, and the latter an inner light verb. For one thing, USE is incompatible with a variety of postverbal complements which can either express frequency/duration, or be construed as descriptive/resultative, as exemplified by (13a,b) and (14a,b) respectively:

- (13) a.    ta    yong na-ba    dao    qie-le    san xia/wu fenzhong, ...  
       he    use that-Cl knife    cut-Prf    three times/five minutes  
       'He cut with that knife three times/for five minutes, ...'  
       b. \* ta    [[qie-le]<sub>k</sub>-USE]    na-ba    dao    t<sub>k</sub>    san xia/wu fenzhong, ...  
       he    cut-Prf                    that-Cl knife    three times/five minutes
- (14) a.    wo    yong na-ba    dao    qie-de    hen man/hen lei, ...  
       I    use that-Cl knife    cut-Res    very slow/very tired  
       'I cut slow/till tired with that knife, ...'  
       b. \* wo    [[qie-de]<sub>k</sub>-USE]    na-ba    dao    t<sub>k</sub>    hen man/hen lei, ...  
       I    cut-Res                    that-Cl knife    very slow/very tired

Interestingly enough, the ungrammaticality of (13b) and (14b) can be rescued by resorting to verb copying, as shown by (15) and (16) respectively:

- (15)    ta    [qie<sub>k</sub>-USE]    na-ba    dao    qie<sub>k</sub>    san xia/wu fenzhong, ...  
       he    cut                    that-Cl knife    cut    three times/five minutes  
       'He cut with that knife three times/for five minutes, ...'

- (16)      wo [qie<sub>k</sub>-USE]      na-ba      dao      qie<sub>k</sub>-de      hen man/hen lei, ...  
             I      cut                      that-Cl      knife      cut-Res      very slow/very tired  
             'I cut slow/till tired with that knife , ...'

For one thing, this cluster of phenomena is reminiscent of Huang's (1982) observation that the number of postverbal complements in Chinese is limited to one. As shown by (17a) and (18a), the main verb cannot be followed by the object and the complement at the same time; the only way to rescue the misconstrual is to apply verb copying, as in (17b) and (18b):

- (17) a. \* Akiu      kan-le      na-ben shu      san bian/wu-ge xiaoshi.  
             Akiu      read-Prf      that-Cl book      three times/five-Cl hour  
             'Akiu read that book three times/ for five hours.'  
             b.      Akiu      kan      na-ben shu      kan-le      san bian/wu-ge xiaoshi.  
             Akiu      read      that-Cl book      read-Prf      three times/five-Cl hour  
             (18) a. \* Akiu      kan-de      na-ben shu      hen shou.  
             Akiu      read-Res      that-Cl book      very knowledgeable  
             'Akiu read that book such that he is very knowledgeable about it.'  
             b.      Akiu      kan      na-ben shu      kan-de      hen shou.  
             Akiu      read      that-Cl book      read-Res      very knowledgeable

1By contrast, there is no complementation restriction on raising to an outer light verb. As shown in (19a,c), with the lexical causative verb *rang* 'make', it is possible to have a duration or resultative complement following the main verb. As an alternative, it is equally ok to raise the main verb further to its implicit counterpart CAUSE upstairs with the postverbal complement, as illustrated by (19b) and (20b):

- (19) a.      na-ba      dao      rang      wo      qie-le      hao jiu.  
             that-Cl knife      cause      I      cut-Prf      very long  
             'That knife made me cut for a very long while.'  
             b.      na-ba      dao      [[qie-le]<sub>k</sub>-CAUSE]      wo      t<sub>k</sub>      hao jiu.  
             that-Cl knife      cut-Prf                      I                      very long  
             'That knife made me cut for a very long while.'  
             (20) a.      na-ba      dao      rang      wo      qie-de      hao lei.  
             that-Cl knife      cause      I      cut-Res      very tired  
             'That knife made me cut such that I was very tired.'  
             b.      na-ba      dao      [[qie-de]<sub>k</sub>-CAUSE]      wo      t<sub>k</sub>      hao lei.  
             that-Cl knife      cut-Res                      I                      very tired  
             'That knife made me cut such that I was very tired.'

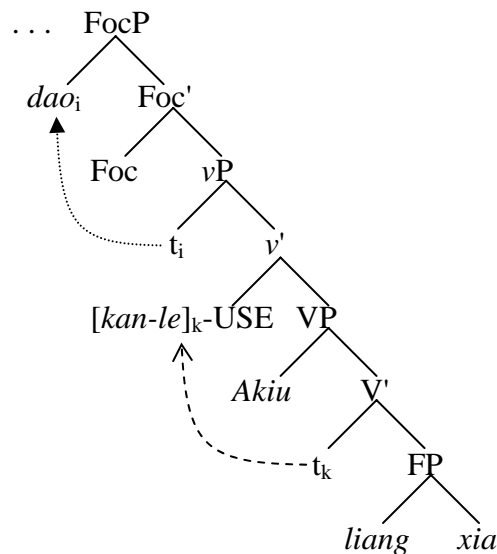
Furthermore, verb copying is never an option for outer light verb construals. This point can be made clear by comparing the following ungrammatical examples with (19a,b) and (20a,b):

- (21) a. \* na-ba      dao      qie      wo      qie-le      hao jiu.  
             that-Cl knife      cut      I      cut-Prf      very long  
             'That knife made me cut for a very long while.'  
             b. \* na-ba      dao      qie      wo      qie-de      hao lei.  
             that-Cl knife      cut      I      cut-Res      very tired  
             'That knife made me cut such that I was very tired.'

Since verb copying is essentially a process confined within the vP phase, and since only the

main verb can license postverbal complements (or inner adjuncts to the same effect), we can thus pin down the location of inner light verbs at the peripheral area of *vP*. Furthermore, Cheng (2007) proposes that verb-copying applies at failure to reduce a verb chain, as its lower copy has been fused with aspect markers such as *-le* or *-de*.<sup>3</sup> Along this line, it becomes quite natural that verb copying cannot apply to outer light verbs: as illustrated in (20b) and (21b), the aspectual inflection is carried along with the main verb. This will never happen to their inner counterparts, as we have seen in (16) and (17).

- (22)    na-ba dao      CAUSE wo USE Op qie-de    [Pro zhi maohan]  
       ⇒ na-ba dao      [[[qie-de]+USE]+CAUSE]    [Op [wo<sub>i</sub> t t [Pro<sub>i</sub> zhi maohan]]]



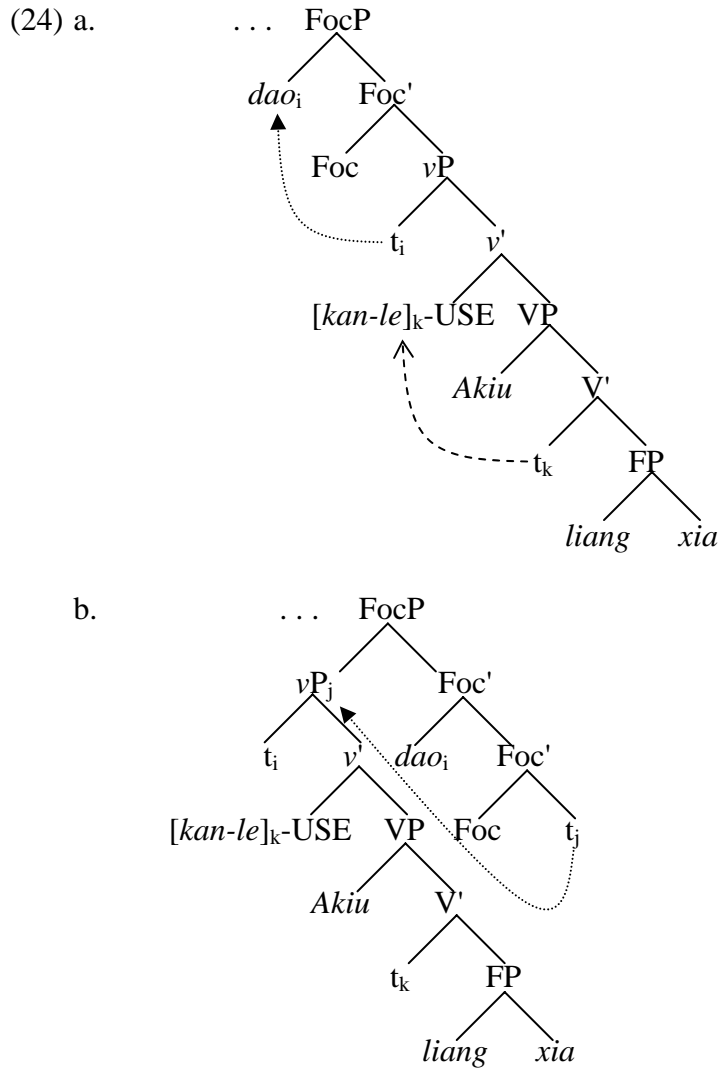
### 3. The Case of a Misplaced Instrument

Armed with the light verb syntax developed so far, we may well take the underlying structure of (23a) to be something parallel to (23b). Namely, it contains an implicit instrumental predicate *yong* 'use' in the peripheral area of *vP* and a frequency phrase *liang xiazi* 'two times' in the inner adjunct position:

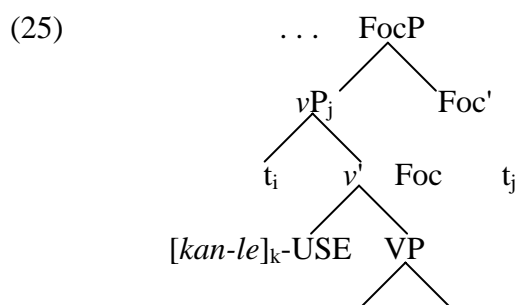
- (23) a.    Zhaoma kan-le    Akiu    liang    **dao**.  
           Zhaoma slash-Prf Akiu    two    knife  
           'Zhaoma slashed Akiu twice with a knife.'  
           Lit. 'Zhaoma slashed Akiu two knives.'  
       b.    Zhaoma yong    **dao**    kan-le    Akiu    liang    xia.  
           Zhaoma use    knife    slash-Prf Akiu    two    time  
           'Zhaoma used a knife to slash Akiu twice.'  
       c.    Zhaoma USE    **dao**    kan-le    Akiu    liang    xia.  
           Zhaoma    knife    slash-Prf Akiu    two    time  
           'Zhaoma used a knife to slash Akiu twice.'

<sup>3</sup> According to Nunes (2004) and Hornstein & Nunes (2002), raising to Foc triggers a morphological fusion between the main verb and the focus head, which makes the highest copy irrelevant to LCA.

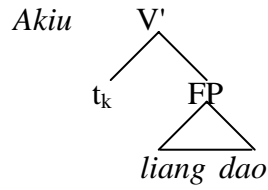
In terms of the information structure, we propose that there is a focus construal associated with the  $\nu$ P containing the frequency-instrumental complex *liang dao* 'two knife' (cf. Tsai 2008b, 2011). The first step of the derivation is V-to-USE raising, accompanied by focus movement of the instrument argument *dao* 'knife', as sketched in (24a) (irrelevant details omitted). Next  $\nu$ P-fronting takes place in a remnant movement style (cf. Huang 1993), adjoining the  $\nu$ P further to the focus projection, as visualized by the diagram (24b):



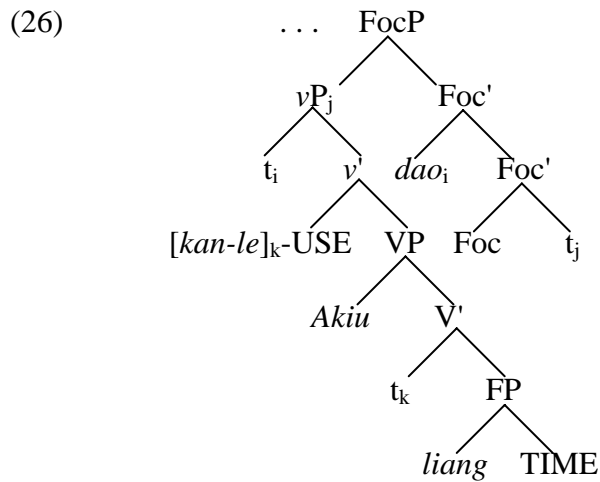
It has been noted by Rizzi (1997) that there can only be one focus projection in the left periphery. We would like to follow suit in claiming that there is only one focus in the  $\nu$ P periphery as well. As a result, the two specifiers of FocP in (24b) are reanalyzed as one at PF, with *liang xia* 'two times' and *dao* 'knife' collapsing into the newly formed complex *liang dao* 'two knives', as shown below:







Alternative, we may postulate a silent event classifier TIME in place of *xia* ‘time’ in the spirit of Kayne (2005). Under this treatment, there is no need to resort to PF reanalysis, and the result would be something like (26). Proposals of similar nature have also been made for the existence of silent PART and silent TYPE in Chinese (see Tsai 2003 and Liao & Wang 2013 respectively).



Both treatments have the advantage of putting an instrumental expression in its rightful place under the cartographic approach (cf. Rizzi 1997, Cinque 1999), while correctly building the focus semantics into the culprit of this mismatch case, i.e., the amalgamation of an instrumental argument with the frequency expression.

## 4. The Fake Classifier Mystery

### 4.1. Parallel Lost

On the surface, the mystery surrounding the syntax-semantics mismatch of (27a) ((7) repeated here) is of similar nature to the cases of misplaced instruments. The sentence can be paraphrased with a light verb *yong* ‘use’, as shown by (27b):<sup>4</sup>

- (27) a.   zhexie   ren       da-le   [yi-zui       hao qiu].  
          these   people   play-Prf one-mouth   nice ball

<sup>4</sup> It has been brought into my attention that it is possible to substitute *shuo* ‘say’ for the verb *da* ‘hit’, as in (ia). As a matter of fact, it is equally possible to paraphrase the sentence as (ib) with *yong* ‘use’. We therefore expect no trouble with extending our account to (ia):

- (i) a.   zhexie   ren       shuo-le   [yi-zui       hao qiu].  
          these   people   say-Prf   one-mouth nice ball  
          ‘These people played a nice ball game just by talking about it (with mouths).’  
          Lit. ‘These people said a mouthful of nice ball games.’  
      b.   zhexie   ren       yong zui       shuo-le   [yi-chang   hao qiu].  
          these   people   use mouth   say-Prf   one-Cl   nice ball  
          ‘These people played a nice ball game just with mouths.’

'These people played a nice ball game just by talking about it (with mouths).'

Lit. 'These people played a mouthful of nice ball games.'

- b. zhexie ren      **yong zui**      da-le      [yi-chang hao qiu].  
 these people use mouth play-Prf one-Cl nice ball  
 'These people played a nice ball game just with mouths.'

However, there is substantial evidence suggesting otherwise. Firstly, there is no number restriction with misplaced instruments, as in (28a), whereas the number cannot exceed one in the case of fake classifiers, as in (28b):

- (28) a. Zhaoma da-le      Akiu      [**liang/san/yibai**      gun].  
 Zhaoma hit-Prf      Akiu      two/three/one hundred staff  
 'Zhaoma hit Akiu twice/three/one hundred times with a staff.'
- b. \* zhexie ren      da-le      [**liang/san/yibai**-zui      hao qiu].  
 these people play-Prf two/three/one hundred-mouth nice ballgame  
 'These people played two/three/one hundred nice ballgames with just mouths.'

Secondly, (29a) shows that we can put a variety of suitable expressions for the misplaced instrument in the inner adjunct position. But the same construal is impossible for fake classifiers, as evidenced by the ungrammaticality of (29b):

- (29) a. Zhaoma da-le      Akiu      [yi      **qiang/bazhang/quan**].  
 Zhaoma hit-Prf      Akiu      one gun/palm/fist  
 'Zhaoma hit Akiu once with a gun/palm/fist.'
- b. \* zhexie ren      da-le      [yi-**bang/pai/jiao** hao qiu].  
 these people play-Prf one-bat/racket/foot nice ball  
 'These people played a nice ball game with bats/rackets/feet.'

Thirdly, as pointed out by L. Zhang (2010), it is not always possible to paraphrase a fake classifier with *yong* 'use,' as shown by the contrast between (30a,b):

- (30) a. Xiaodi xie-de      yi-**shou** hao wenzhang.  
 Xiaodi write-Fac      one-hand nice article  
 'Xiaodi is very good at writing articles.'  
 Lit. 'Xiaodi writes a handful of nice articles.'
- b. ?? Xiaodi yong **shou** xie-de yi-pian hao wenzhang.  
 Xiaodi use hand write-Fac one-Cl nice article  
 'Xiaodi writes nice articles with hands.'

## 4.2. The Road to a Classic Solution

One way to look at this issue is to suggest that the process responsible for shaping (30a) is not entirely synchronic. Rather, it may well be the case that *shou* 'hand' has been lexicalized as a noun/classifier which expresses a considerable degree of competence. Besides, it can be used in a completely different construction, as in (31a), where the above restrictions are also strictly observed, as evidenced by (31b,c). The same observation applies to another common body-part instrument, i.e., *tui* 'leg', as illustrated by the contrast between (32a) and (32b,c):

- (31) a. Zhaoma shaocai hen you **yi-shou**.

- Zhaoma cooking very have one-hand  
 'Zhaoma is very good at cooking.'  
 Lit. 'Zhaoma has a hand at cooking.'
- b. \* Zhaoma shaocai hen you **liang/san/yibai**-shou.  
 Zhaoma cooking very have two/three/one.hundred-hand
- c. \* Zhaoma shaocai hen you **yi-jiao/zui/chan**.  
 Zhaoma cooking very have one-foot/mouth/turner
- (32) a. Akiu he Zhaoma you **yi-tui**.  
 Akiu and Zhaoma have one-leg  
 'Akiu and Zhaoma have an affair.'  
 Lit. 'Akiu and Zhaoma have one leg.'
- b. \* Akiu he Zhaoma you **liang/san/yibai**-tui.  
 Akiu and Zhaoma have two/three/one.hundred-leg
- c. \* Akiu he Zhaoma you **yi-jiao/zui/chan**.  
 Akiu and Zhaoma have one-foot/mouth/turner

In fact, even frequency phrases may evolve in this direction, as evidenced by the uncharacteristic usage of *liang-xiazi* 'two-time' in (33a), which observes the now familiar restrictions, as seen in (33b,c):

- (33) a. Zhaoma shaocai hen you **liang-xiazi**.  
 Zhaoma cooking very have two-time  
 'Zhaoma is very good at cooking.'
- b. \* Zhaoma shaocai hen you **yi/san/yibai**-xiazi.  
 Zhaoma cooking very have one/two/one hundred-time
- c. \* Zhaoma shaocai hen you **liang-ci/bian/xia**.  
 Zhaoma cooking very have two-time/time/time

So it would not be unreasonable to suggest that what really happened in sentences like (30a) is a process of lexicalization, where the instrument has been incorporated into an idiomatic expression. This explains why the construal no longer has an overt counterpart such as (30b). As a matter of fact, *liang* in (33a) is not a cardinal predicate at all. It functions more like a weak existential quantifier, expressing an indefinite degree of quality (similar to the existential construal in *She is quite something in that outfit*). The same observation applies to the numeral *yi* across (30-32), which really means 'full,' 'complete' or 'accomplished.'<sup>5</sup> (30a) thus has a flavor close to the English expression *She is an accomplished writer*.

Furthermore, the asymmetry between (30a,b) is not an isolated case, and we do find quite a number of examples with *bi* 'pen' and *kou* 'mouth' as fake classifiers, as shown below:

- (34) a. Xiaodi xie-de yi-**bi** hao zi.  
 Xiaodi write-Fac one-pen beautiful calligraphy  
 'Xiaodi does beautiful penwork.'

<sup>5</sup> The semantics of *yi* in question is very much reminiscent of the usage of *man* 'full' below:

- (i) a. Zhaoma man shou hao cai.  
 Zhaoma full hand nice dish  
 'Zhaoma can cook a full range of nice dishes.'
- b. Zhaotaiye man kou jingpianzi.  
 Zhaotaiye full mouth exquisite.Mandarin  
 'Zhaotaiye can speak a full range of exquisite Mandarin.'

- b. ?? Xiaodi yong **bi** xie-de yi-pian hao zi.  
 Xiaodi use pen write-Fac one-Cl beautiful calligraphy  
 'Xiaodi does beautiful calligraphy with pens.'
- (35) a. Zhaotaiye shuo-de yi-**kou** jingpianzi.  
 Zhaotaiye speak-Fac one-mouth exquisite.Mandarin  
 'Zhaotaiye speaks exquisite Mandarin.'
- b. \* Zhaotaiye yong kou shuo-de yi-duan jingpianzi.  
 Zhaotaiye use mouth speak-Fac one-Cl exquisite.Mandarin  
 'Zhaotaiye speaks exquisite Mandarin with mouth.'

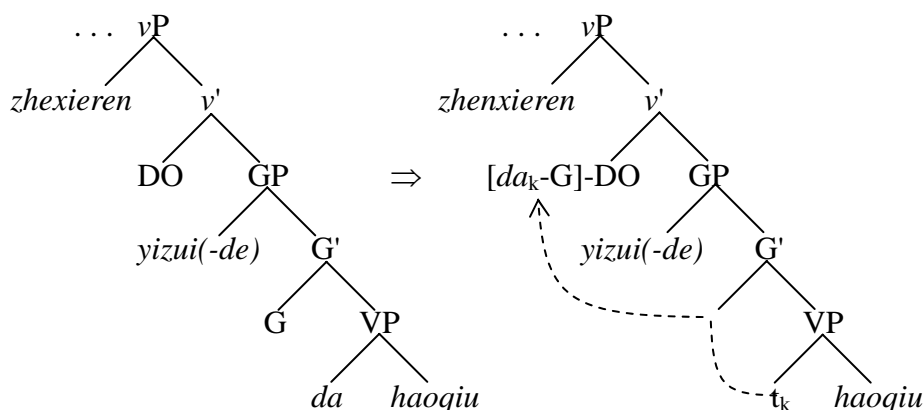
This shows that the lexicalization in question is as idiosyncratic as we thought, and that the proposed mechanism is at work in shaping through lexicalization processes the peripheral area of nominal as well as verbal projections. In other words, what is lexicalized may well be the result of a once productive syntactic procedure, which, as we have seen in (27a), is still very much alive in introducing new kinds of classifiers nowadays.

### 4.3. The Final Analysis

Based on the above observations, we elect to adopt Huang's (2008) gerundive analysis instead to solve the fake classifier mystery, as illustrated in the following derivation:

(36) a. DO + GP

b. V-to-G-to-*v* raising



Here we take the lexicalized instrument *zui* 'mouth' to be an integrated part of the nominal quantifier *yizui(-de)* 'a mouthful (of)', which in turn occupies the Spec-GP. The verb *da* 'hit' then raises in the same fashion as in the case of fake adjectivals, i.e., all the way to the light verb DO upstairs.

This move is further supported by the fact that all four cases of fake classifiers allow an optional adjectival marker *de*, very much in line with fake possessors and fake adjectivals as we have seen in section 1:

- (37) a. zhexie ren da-le [GP yi-zui-**de** hao qiu].  
 these people play-Prf one-mouth-DE nice ballgame  
 'These people played a nice ballgame with just mouths.'
- b. Xiaodi xie-de [GP yi-shou-**de** hao wenzhang].  
 Xiaodi write-Fac one-hand-DE nice article  
 'Xiaodi is very good at writing articles.'
- c. Xiaodi xie-de [GP yi-bi-**de** hao zi].

- |    |  |           |                                   |                       |
|----|--|-----------|-----------------------------------|-----------------------|
|    | Xiaodi                                 | write-Fac | one-pen-DE                        | beautiful calligraphy |
|    | 'Xiaodi does beautiful penwork.'       |           |                                   |                       |
| d. | Zhaotaiye                              | shuo-de   | [ <sub>GP</sub> yi-kou- <b>de</b> | jingpianzi].          |
|    | Zhaotaiye                              | speak-Fac | one-mouth-DE                      | exquisite.Mandarin    |
|    | 'Zhaotaiye speaks exquisite Mandarin.' |           |                                   |                       |

In sum, misplaced instruments are event classifiers in disguise, whereas fake classifiers are lexicalized instruments with special quantificaitonal properties. They share the property of joining in a masquerade where light verb syntax and *vP* peripheral construals play a central role.

## 5. Further Issues and Consequences

### 5.1. Focus Movement to the *vP* Periphery

But how productive really is focus movement in shaping Chinese *vP* structures? Is there any parallel evidence for the proposed analyses of misplaced instruments? The answer seems to be on the positive side. It is instructive to note that the classic cases of fake possessors and fake adjectivals also sport an extensive usage of focus movement (cf. Huang 2008). For instance, (38a) ((1) repeated here) allows both the normal and idiomatic interpretations. This ambiguity is retained even when the Patient-Theme complex *Zhaoma de doufu* preposes to the *vP* periphery under a contrastive focus construal such as (38b); here again we focus only on the sexual harassment reading:

- (38) a. Akiu chi [Zhaoma de doufu].  
 Akiu eat Zhaoma DE tofu  
 'Akiu sexually harassed Zhaoma.'  
 Lit. 'Akiu ate Zhaoma's tofu.'
- b. Akiu [Zhaomade doufu] chi, [xiao nigu de] jiu nanjiang le.  
 Akiu Zhaoma DE tofu eat little nun DE then hard.to.say Inc  
 'Akiu will sexually harass Zhaoma, but it is hard to say whether he will do that to the little nun.'

The same point applies to fake adjectivals as well: (39a) shows that the Duration-Theme complex can be focus-moved to a preverbal position in the *lian ... dou* construction, as evidenced by (39b):

- (39) a. Akiu mei zhu-guo [yi-tian de xiancheng].  
 Akiu have.not live-Exp one-day DE county.town  
 'Akiu has not lived in town for one day.'  
 Lit. 'Akiu has not lived in one-day's town.'
- b. Akiu lian [yi-tian de xiancheng] dou mei zhu-guo.  
 Akiu even one-day DE county.town all have.not live-Exp  
 'Akiu has not lived in town for even one day.'

The difference lies in the fact that there is only one focus position involved in (38b) and (39b). Hence no PF reanalysis is required to fix the double focus violation mentioned above. So there is indeed some independent evidence for our focus movement analysis after all.

### 5.2. The Case of Peculiar Numbers

A productivity issue arises when we consider the number restriction on fake classifier construals. As noted in section 4.1, it is impossible to attach a numeral larger than one to a fake classifier such as *zui* 'mouth' in (27a). Interestingly enough, there is a similar restriction on some of the inner adjuncts in Chinese. As we can tell from the contrast between (40a) and (40b), numerals above one are incompatible with an event/verbal classifier like *dun* 'round' in a postverbal position:<sup>6</sup>

- (40) a. Akiu da-le Xiaodi yi **dun.**  
 Akiu hit-Prf Xiaodi one round  
 'Akiu did one round of beating to Xiaodi.'
- b. \* Akiu da-le Xiaodi liang/qi **dun.**  
 Akiu hit-Prf Xiaodi two/seven round  
 'Akiu did two/seven rounds of beating to Xiaodi.'

By contrast, no such restriction is imposed upon the ordinary usage of postverbal frequency phrases headed by *xia* or *ci* 'time', as seen below:<sup>7</sup>

- (41) a. Akiu da-le Xiaodi yi **xia/ci.**  
 Akiu hit-Prf Xiaodi one time/time  
 'Akiu hit Xiaodi once.'
- b. Akiu da-le Xiaodi liang/qi **xia/ci.**  
 Akiu hit-Prf Xiaodi two/seven time/time  
 'Akiu hit Xiaodi twice/seven times.'

The above contrast leads us to the conclusion that what is involved here is not a frequency construal after all. Rather, it has more to do with the completion of the relevant event, e.g., the beating of Xiaodi in (40a). If this line of thinking proves to be on the right track, then the number restriction here simply testifies to our treatment of fake classifiers, namely, that there is an ongoing process of lexicalization in (40a) such that the numeral *yi* is obligatorily construed as quantificational rather than cardinal, hence the deviance of (40b).

### 5.3. Misplaced Instruments as Verbal Classifiers?

It has been proposed by N. Zhang (2002) that misplaced instruments should be treated like verbal classifiers, whose function is to classify eventuality types. A reviewer also points out an interesting alternative, according to which misplaced instruments stay in the Spec-GP as eventive measure phrases under a unified gerundive analysis. For one thing, it should be clear from our analysis that the semantic contribution of an event classifier like *xia* or *ci* 'time' is never in dispute under our approach; they just do not show up at PF after reanalysis. For another, if misplaced instruments are lexicalized event classifiers themselves, then we will

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<sup>6</sup> Incidentally, *dun* 'round' can also appear before a noun like *fan* 'meal', as in (ia). For this nominal classifier usage, there is no number restriction, as evidenced by (ib):

- (i) a. Akiu gen Xiaodi chi-le yi-dun fan.  
 Akiu with Xiaodi eat-Prf one-round meal  
 'Akiu ate a meal with Xiaodi.'
- b. Akiu gen Xiaodi chi-le liang/qi-dun fan.  
 Akiu with Xiaodi eat-Prf two/seven-round meal  
 'Akiu ate two/seven meals with Xiaodi.'

<sup>7</sup> There is a subtle distinction between the two frequency nouns: *xia* is often employed to count repeated activity within one event, while *ci* is more oriented towards event-level counting.

need to account for the fact that the physical presence of an instrument is required (e.g., a knife in a slashing event, a staff in a knocking event, etc.).

More importantly, we do not take this view because there does not seem to be enough evidence to justify a grammaticalized agreement relationship between misplaced instruments and their main predicates, since it is possible to substitute instruments/weapons of different types for *bazhang* 'palm' in (42a), as evidenced by (42b-d):

- (42) a. Zhaoma da-le Akiu liang **bazhang**.  
 Zhaoma hit-Prf Akiu two palm  
 'Zhaoma slapped Akiu twice with her palm.'
- b. Zhaoma da-le Akiu liang **qiang**.  
 Zhaoma hit-Prf Akiu two gun  
 'Zhaoma shot Akiu twice with a gun.'
- c. Zhaoma da-le Akiu liang **gun**.  
 Zhaoma hit-Prf Akiu two staff  
 'Zhaoma hit Akiu twice with a staff.'
- d. Zhaoma da-le Akiu liang **chui**.  
 Zhaoma hit-Prf Akiu two hammer  
 'Zhaoma hit Akiu twice with a hammer.'
- e. Zhaoma da-le Akiu liang **bang**.  
 Zhaoma hit-Prf Akiu two bat  
 'Zhaoma hit Akiu twice with a bat.'

Furthermore, it is possible to exchange the main predicate for a verb of suitable kind. For instance, (42c) can be replaced by any of the predicates of (43a-d) with a slight change of flavor with respect to manner of hitting:

- (43) a. Zhaoma **pi**-le Akiu liang gun.  
 Zhaoma slash-Prf Akiu two staff  
 'Zhaoma slashed Akiu twice with a staff.'
- b. Zhaoma **qiao**-le Akiu liang gun.  
 Zhaoma knock-Prf Akiu two staff  
 'Zhaoma knocked Akiu twice with a staff.'
- c. Zhaoma **sao**-le Akiu liang gun.  
 Zhaoma sweep-Prf Akiu two staff  
 'Zhaoma swept Akiu twice with a staff.'
- d. Zhaoma **chuo**-le Akiu liang gun.  
 Zhaoma poke-Prf Akiu two staff  
 'Zhaoma poked Akiu twice with a staff.'

In terms of syntax, the alternative would also wrongly predict that a misplaced instrument has the same distribution as a fake adjectival, i.e., the de facto verbal classifier in relevant construals. The prediction, however, is not borne out, as evidenced by the following contrasts between misplaced instruments and their fake adjectival counterparts:

- (44) a. Zhaoma kan-le wulai liang dao.  
 Zhaoma slash-Prf vagabond two knife  
 'Zhaoma slashed the vagabond twice (with a knife).'
- b. \* Zhaoma kan-le liang-dao(-de) wulai.  
 Zhaoma slash-Prf two-knife-DE vagabond

- (45) a. Wanghu da-le yegou yi gun.  
 Wanghu hit-Prf stray.dog one staff  
 'Wanghu hit the stray dog once with a staff.'
- b. \* Wanghu da-le yi-gun(-de) yegou.  
 Wanghu hit-Prf one-staff-DE stray.dog

All in all, the formation of misplaced instruments is much more syntactic in nature. Namely, they are quite productive in contrast to fake classifiers, and do not appear to involve lexicalization of any kind. Moreover, their semantics is fairly transparent and straightforward. All these facts lend further support to our focus movement analysis laid out in section 2.

#### 5.4. The Double Object Mystery

A reviewer points out that (6a) has a near paraphrase (46), where the misplaced instrument appears in the direct object of *gei* 'give,' and arguably serves as a measure phrase:

- (46) Zhaoma gei-le Akiu liang bazhang.  
 Zhaoma give-Prf Akiu two palm  
 'Zhaoma gave Akiu two slaps.'

This sentence, however, seems to involve a causative construal which licenses the implicit hitting event (cf. Hale & Keyser 2002; Harley 2002). In other words, (46) has the semantics 'Zhaoma caused Akiu to undergo a hitting event with her palm twice.' Interestingly enough, another reviewer also observes that the inner light verb USE can sometimes be construed as APPLY instead, which, in our view, may well contribute to the applicative meaning of this highly stylized usage of the giving verb, i.e., with *Akiu* serving as a de facto Affectee argument.

Another related issue has to do with the following examples:

- (47) a. Zhaoma shuo-le Akiu liang ju.  
 Zhaoma speak-Prf Akiu two sentence  
 'Zhaoma criticized Akiu a little.'
- b. Zhaoma ma-le Akiu yi sheng.  
 Zhaoma scold-Prf Akiu one sound  
 'Zhaoma scolded Akiu a little.'

As noted by a reviewer, *ju* 'sentence' and *sheng* 'sound' are indeed not instruments, but (47a,b) do not fall under the category "misplaced instruments" either. Here the indirect object *Akiu* is actually an Affectee argument, very much like those in pseudo double object constructions such as (48a,b):

- (48) a. Zhaoma he-le Akiu san-ping jiu.  
 Zhaoma drink-Prf Akiu three-Cl wine  
 'Zhaoma drank three bottles of wine on Akiu.'
- b. Xiaodi chi-le Zhaotaiye liang-ge mantou.  
 Zhaoma eat-Prf Zhaotaiye two-Cl steamed.bun  
 'Xiaodi ate two steamed buns on Zhaotaiye.'

We will therefore leave these issues open till we have a proper understanding of both construals.



### 5.5. Location as a Fake Classifier?

Finally, we are to discuss yet another intriguing case brought up by L. Zhang (2010), where it appears to be a location that has been ushered into the classifier position in question, as exemplified below:

- (49)     Zhaoma shao-le yi-**zhuo** hao     cai.  
          Zhaoma cook-Prf one-table delicious dish  
          'Zhaoma cooked a tableful of delicious dishes.'

A careful investigation, however, reveals that this may not be the case at all. Despite its surface resemblance to a fake classifier, *zhuo* 'table' is by no means derived from a locative expression in the *vP* periphery. We can tell this easily by the fact that there is no way to paraphrase (49) as something like (50):

- (50)     Zhaoma zai **zhuo**-shang shao-le yi-dao hao     cai.  
          Zhaoma at table-top cook-Prf one-Cl delicious dish  
          'Zhaoma cooked a delicious dish on the table.'

In fact, *zhuo* in (49) is likely to be a Chinese counterpart of the English word *tableful*. Namely, it has nothing to do with either location or individualization, but simply expresses the capacity of a table to hold things (dishes in this case). It should therefore be analyzed as a measure word rather than a (fake) classifier.

On the syntactic front, *zhuo* also fails the tests we devised earlier. On the one hand, there is no number restriction on this "locative classifier" as evidenced by the well-formedness of (51a,b):

- (51) a.     Zhaoma shao-le san-**zhuo**     hao     cai.  
          Zhaoma cook-Prf three-table     delicious dish  
          'Zhaoma cooked two tablefuls of delicious dishes.'  
      b.     Zhaoma shao-le qi-**zhuo**     hao     cai.  
          Zhaoma cook-Prf seven-table     delicious dish  
          'Zhaoma cooked seven tablefuls of delicious dishes.'

On the other, the main verb of (49) is freely exchangeable with any predicate that can take *cai* 'dish' as its object. Following are just a couple of examples:

- (52) a.     Zhaoma daodiao-le     yi-**zhuo** hao     cai.  
          Zhaoma throw.away-Prf     one-table delicious dish  
          'Zhaoma threw away a tableful of delicious dishes.'  
      b.     Zhaoma ding-le     yi-**zhuo** hao     cai.  
          Zhaoma order-Prf     one-table delicious dish  
          'Zhaoma ordered a tableful of delicious dishes.'

We thus reach the conclusion that (49) does not constitute a counterexample to our analysis of fake classifiers. Rather, the locative term belongs to an entirely different breed, that is, measurement by the size of a table.

### 6. Concluding Remarks

With the development of a more elaborate version of light verb syntax and focus movement, it becomes possible to extend our account to cases such as misplaced instruments and fake classifiers, which would remain mysterious under conventional treatments. As a bonus, we will be able to maintain the general topography of the *v*P periphery since the mismatches only occur when PF measures apply to meet the requirement of information structure, for instance, the restriction that there can only be one focus for each periphery.

Furthermore, as we have seen in the number restriction and productivity issues associated with fake classifiers, there may well be a historical dimension to their distribution, where the end product of the proposed mechanism has been lexicalized, and their origins are therefore untraceable in synchronic terms. By comparison, the derivation of misplaced instruments is much more syntax-oriented, showing no sign of restrictions on numerals, instruments, or predicate types.

In sum, misplaced instruments are event classifiers in disguise, whereas fake classifiers are essentially lexicalized instruments. They share the property of joining in a masquerade where focus movement and PF reanalysis play a central role. Admittedly, there are still many remaining issues to be solved, e.g., why the proposed mechanism should behave in certain ways but not the others. By asking a load of questions and answering a few, this article serves as a follow-up study to the program initiated by Huang (1994, 1997, 2008), which aims to match syntax-semantics mismatches in a principled way, and by doing so, to further our understanding of the inner workings of the human language faculty.

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