On Dummy Objects and the Transitivity of Run
Lisa Lai-Shen Cheng and Rint Sybesma

1. The questions

This paper starts out from the observation that, strikingly, the Chinese counterparts of virtually all intransitive verbs in English are transitive. This is not only the case with the intransitive or so-called unspecified object reading of verbs like *eat*, whose Mandarin counterpart is *chi-fan* ‘eat-rice’, but also with verbs such as *yawn* and *walk* which in Mandarin come out as *da-haqian* ‘hit/do (a) yawn’ and *zou-lu* ‘walk-road’ respectively. (All Chinese data in this paper are drawn from Mandarin.) The observational generalization is that in all these VO combinations, either the verbal part is “light” or “empty” in the sense that it does not seem to contribute very much to the meaning of the combination as a whole (like in the *hit/do (a) yawn* example), or the object does not contribute much to the meaning: *zou* and *chi* already mean ‘walk’ and ‘eat’ respectively, and semantically, *lu* ‘road’ and *fan* ‘rice’ do not add anything. So either the verb or the object is a syntactic dummy. In this paper, we concentrate on the latter group of VO combinations, and explore some issues related to the dummy objects, both from a Chinese and from a comparative angle, trying to explain some of the differences between Chinese and English. The VO combinations with dummy verbs will only be mentioned briefly in section 3.

I. The first question we would like to address is: Why do verbs like *chi-fan* ‘eat’ in Mandarin need a non-referential object in their unspecified object reading, whereas their counterpart in English does not (as is illustrated in (1))?

(1) a. wo bu ai chi-* (fan)  
    I not like eat-rice  
    ‘I don’t like to eat’  

b. John doesn’t like to eat

*Eat* — *chi-fan* ‘eat-rice’ is one of a large group of verbs which behave similarly in both languages; more examples are given in (2) (see Keyser and Roeper 1992, Levin 1993):
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(2)  

<table>
<thead>
<tr>
<th>English</th>
<th>Mandarin</th>
</tr>
</thead>
<tbody>
<tr>
<td>drink</td>
<td>he-dongxi ‘drink-thing = drink’</td>
</tr>
<tr>
<td>eat</td>
<td>chi-fan ‘eat-rice = eat’</td>
</tr>
<tr>
<td>read</td>
<td>kan-shu ‘read-book = read’</td>
</tr>
<tr>
<td>sing</td>
<td>chang-ge ‘sing-song = sing’</td>
</tr>
<tr>
<td>study</td>
<td>nian-shu ‘study-book = study’</td>
</tr>
<tr>
<td>speak</td>
<td>shuo-hua ‘speak-speech = speak’</td>
</tr>
<tr>
<td>teach</td>
<td>jiao-shu ‘teach-book = teach’</td>
</tr>
<tr>
<td>write</td>
<td>xie-zi ‘write-character = write’</td>
</tr>
</tbody>
</table>

II. As noted above, verbs like English walk have a VO counterpart in Chinese: zou-lu ‘walk-road’. Here are some more examples:

(3)  

<table>
<thead>
<tr>
<th>English</th>
<th>Mandarin</th>
</tr>
</thead>
<tbody>
<tr>
<td>drive</td>
<td>kai-che ‘drive-car = drive’</td>
</tr>
<tr>
<td>move</td>
<td>ban-jia ‘move-house = move’</td>
</tr>
<tr>
<td>run</td>
<td>pao-bu ‘run-step = run’</td>
</tr>
<tr>
<td>skate</td>
<td>liu-bing ‘slide-ice = skate’</td>
</tr>
<tr>
<td>walk</td>
<td>zou-lu ‘walk-road = walk’</td>
</tr>
</tbody>
</table>

The second question we would like to address is: Why would Chinese have these objects while English does not?

A related issue we will consider concerns the fact that, in Chinese, there is a very small class of intransitive verbs, which do not consist of a VO combination; as far as we have been able to find out, this class is constituted by two verbs: xiao ‘laugh’ and ku ‘cry’. Why is it the case that verbs like xiao ‘laugh’ do not have an object, while verbs like pao-bu ‘run’ do, as is illustrated in (3)?

(4)  

<table>
<thead>
<tr>
<th>a.</th>
<th>ta xihuan xiao</th>
<th>b.</th>
<th>ta xihuan pao-(bu)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>he like laugh</td>
<td></td>
<td>he like run-step</td>
</tr>
<tr>
<td></td>
<td>‘he likes to laugh’</td>
<td></td>
<td>‘he likes to run’</td>
</tr>
</tbody>
</table>

III. The third question is related to similarities and differences between verbs such as chi ‘eat’ on the one hand and verbs like pao ‘run’ on the other. They are similar in that both types of verb have an object in the intransitive/unspecified object reading. They are different, first, in that in this reading chi ‘eat’ requires the object fan ‘rice’ to be there, while bu ‘step’ is optional with pao ‘run’ (as one can see in (3b)). Secondly, in other contexts, if they occur without an overt object, the interpretation is different: as is illustrated in (5a), when chi ‘eat’ is used without an overt object, the interpretation involves a definite object inter-
pretation \((pro)\); (5a) cannot mean that Zhang San “had a meal”. Instead, it conveys that there was something specific, known from context, and that is what he ate. In (5b), on the other hand, we see that when \(pao\) is used without an object, we get a totally different interpretation (i.e., ergative).

(5) a. Zhang San chi-le  
    Zhang San ate-PRF  
    ‘Zhang San ate it’  

   b. Zhang San pao-le  
    Zhang San run-PRF  
    ‘Zhang San ran away/escaped’

This pattern is typical of the whole class of these verbs. The other verbal elements mentioned in (3) also shift to ergativity (if this is the right way of characterizing it), as the following sentences show:

(6) a. tamen pao-le  
    they run-PRF  
    ‘they ran away/escaped’

   b. huoche kai-le  
    train drive-PRF  
    ‘the train is gone’

c. zei liu le  
    thief slide-PRF  
    ‘the thief is gone’

   d. ta ban-le  
    he move-PRF  
    ‘he moved away’

The question then is: Why do \(chi\) ‘eat’ and \(pao\) ‘run’, which are both verbs with an object in their intransitive/unspecified object reading, behave so differently in these two respects: (a) in the unspecified object reading, the object is optional for \(pao\) but not for \(eat\); (b) if the object is missing, \(chi\) gets a \(pro\)-object reading, \(pao\) shifts to ergativity?

2. Other languages

The data in this section show that we are not dealing with a Chinese peculiarity or an isolated phenomenon. In fact, Chinese is by no means exceptional in having these VO combinations as counterparts of intransitive (uses of) verbs in languages like English. The literature on West-African languages, for instance, refers often to what we called dummy verbs (referred to as “pro-verbs” in this literature) and dummy objects (“inherent complements”), in addition, of course, to the abundance of cognate objects some of these languages display. Here are two “dummy object” examples from Mundang (spoken in Cameroon and Chad) (from Elders, in progress):

(7) a. rû-n sălî  
    attack war

   b. žôô záá  
    vomit mouth

    ‘attack’  
    ‘vomit’
Similarly, in Mundang, as is illustrated in (8), intransitive/unspecified eating is expressed with the verb for eating and an object meaning ‘food’. (This is the case in many other languages too, like Ewe — Collins 1993:21, fn. 3; or, with incorporated objects, Yoruba — e.g., Baker 1989, fn. 11; Rowlands 1969:136):

(8) mò ràk hwál bè ne?
you eat food PRE/Aff Q
‘have you eaten?’

In many West-African languages, verbs of running also consist of a verb and an object. In most cases, it seems, the verb is the dummy element (‘do/make/hit a run’), but Gâ in (9a) and Ewe in (9b) provide examples of ‘run’ with a dummy object (Kropp-Dakubu 1973:85 for Gâ; Collins 1993:31 for Ewe):

(9) a. e jò föi s/he run speed/race
b. me zɔ afɔ blewuu I walk foot slowly
   ‘s/he ran’ ‘I walked slowly’

Elders (p.c.) indicates that Mundang is also similar to Chinese with respect to the interpretation of an empty object with verbs of eating: if the context is right, it will refer to something specific in the context.

3. The proposal

In order to answer the questions in Section 1, we propose the following. First, we have reasons to think that the difference between Mandarin xiao ‘laugh’, without a surface object, and pao-bu ‘run’ with such an object, constitutes a strong indication that there are two different classes of unergative verbs (contra Hale and Keyser 1993, 1997), each class having its own underlying representation. Besides the underlying representation of verbs of the xiao/laugh class, which is the one basically promulgated for all unergatives in the work of Hale and Keyser — involving an empty verb, with the object of this verb incorporating into it (see (10a)) — we argue that a different structure underlies the pao/run class and this structure involves a syntactically active object (see (10b)). The former, the one in (10a), will be referred to as the “denominal structure”, the latter, (10b), as the “full object structure”.

Before presenting the arguments for the full object status of the object in (10b), we would like to note that, as mentioned above, there are probably just two verbs in the xiao/laugh class in Chinese. This could be taken as an indication that Chinese may have no denominal verbs at all — at least not in the literal sense of the word. It is a fact that most English denominal verbs translate as VO combinations in Chinese. Of these, the VO combinations in which the object is
the dummy are rare. In many instances, these combinations are of the other VO class mentioned in Section 1, in which the verb is the dummy (exemplified in (11a)). In the remaining cases, neither V nor O seems a dummy, (11b).

(11)  

<table>
<thead>
<tr>
<th>English</th>
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</tr>
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<tbody>
<tr>
<td>a. hiccup</td>
<td>da-ge ‘hit/make hiccup = hiccup’</td>
</tr>
<tr>
<td>sneeze</td>
<td>da-penti ‘hit/make sneeze = sneeze’</td>
</tr>
<tr>
<td>snore</td>
<td>da-hulu ‘hit/make snore = snore’</td>
</tr>
<tr>
<td>b. cycle</td>
<td>qi-che ‘ride-cart = cycle’</td>
</tr>
<tr>
<td>rain</td>
<td>xia-yu ‘fall-rain = rain’</td>
</tr>
<tr>
<td>shower</td>
<td>xi-zao ‘wash-bath = shower’</td>
</tr>
</tbody>
</table>

We suggest that the class of Chinese words in (11a) has the underlying denominal structure of (10a). The difference with their English counterparts is that no incorporation takes place; instead, the V slot is filled by a dummy. The derivation of xiao ‘laugh’ and ku ‘cry’ is not clear: either (a) they are like their English counterparts (the object noun incorporates into V); or (b) the object does not incorporate and the V slot is filled with an empty V. Whatever the solution, it is unclear why xiao ‘laugh’ and ku ‘cry’ differ from the Chinese verbs in (11a).

As to the “full object structure”, we have the following reasons for claiming that dummy objects like bu ‘step’ in pao-bu ‘run’ (as well as fan ‘rice’ in chi-fan ‘eat’) are syntactically active objects (additional arguments based on English follow). First, dummy objects are in complementary distribution with other objects.

(12)  

| chi (*fan) pingguo (*fan) |
| eat rice apple rice |

(13)  

| a. pao shang-dian |
| run shop |
| ‘run from shop to shop’ |
| b. *pao bu shang-dian/*pao shang-dian bu |
| run step shop/run shop step |
(14)  

a. pao cai-liao
   run material
   'run about collecting material or making inquiries'

b. *pao bu cai-liao/*pao cai-liao bu
   run step material/run material step

Chi 'eat' can, of course, have all sorts of objects and these objects never cooccur with fan 'rice'. Similarly, a verb like pao 'run' can have a small number of unspecified objects, as is illustrated in the examples above. Crucially, these objects and bu 'step' never cooccur. The complementary distribution suggests that they occupy the same slot.

The second argument concerns the behavior of bu in the context of postverbal quantitative expressions like yi-xia 'a bit'. Yi-xia 'a bit' occurs between the verb and its object, regardless of whether it is definite or indefinite. Vis à vis yi-xia dummy objects like bu 'step' behave exactly like other objects:

(15)  

a. pao yi-xia bu
   run a-bit step
   'run a bit'

b. kan yi-xia shu
   read a-bit book
   'read a bit'

c. kan yi-xia zhei-ben shu
   read a-bit this-CL book
   'read this book a bit'

Finally, dummy objects can be modified, especially by time expressions (Sybesma 1992).

(16)  

a. ta pao-le yi-ge xiaoshi de bu
   he run-PRF one-CL hour DE step
   'he ran/jogged for an hour'

b. ta kan-le liang tian de shu
   he read-PRF two day DE book
   'he read for two days'

This gives us enough reason to see bu 'step' as a syntactically active object and postulate (10b) as the underlying structure for the run/pao-bu class of unergatives.

Differences between laugh and run in English confirm our reasoning that there are two types of unergatives. It is well known that laugh and run in English differ with respect to the question as to what kind of objects they allow for (see Levin 1993). As Levin shows, verbs like laugh only allow for two types of
objects: (a) cognate objects, more specifically, zero-related copies (as is illustrated in (17a)); and (b) so-called reaction objects (the use of which is very limited), see (17b).

(17) a. John smiled a charming smile
    b. John smiled his thanks

*Run and similar verbs, on the other hand, do not have cognate objects, as is noted by Levin, see (18a). They may have causative objects (see (18b); run a company, run a bath are probably causatives too), as well as what we would like to call “full” (or “regular”) objects, exemplified in (18c).

(18) a. *Bill ran a difficult run
    b. Bill ran the rats through the maze
    c. run an errand, run a test, run the fields, run the streets, run drugs, run a stop sign

We propose, then, that English run is like Mandarin pao-bu: it has the underlying structure in (10b), the full object structure.

However, if run is like pao-bu ‘run-step’, the question that comes up immediately is: Where is the English bu ‘step’?

We think that run and pao-bu differ from one another with regard to the unspecified object for the same reason why unspecified eat is different from chi-fan. These four verbs all have non-referential objects. The difference is that English uses empty nominals, as was proposed for eat by Keyser and Roeper (1992), whereas Chinese uses overt dummies.

This answer begs the next question, viz., Why can English make use of empty nominals for non-referential objects, while Chinese has to resort to overt dummies? We suggest that this is related to the fact that Chinese allows for empty objects with definite reference (Huang 1984, Lu 1994), while English does not. We refer to this empty object as pro to express that it refers to something specific or definite. Chinese, then, has object pro, while English does not. We assume further, that if a language has object pro, there can be no non-referential empty elements in object position: empty objects are necessarily pro. In such a language, non-referential objects are expressed by an overt dummy nominal.

(19) If a language has object pro it does not have empty objects which are not referential. Such non-referential objects are expressed by an overt dummy nominal.

If this claim is correct, it explains why Chinese needs to resort to overt nominals to express non-referential objects (it has object pro). It also explains why English does not need to use overt dummies (it does not have object pro).
Note, however, that the fact that English run can never be run-step, means that English not only doesn’t need overt dummies, it cannot even have them. This may be traced back to (other) fundamental differences between English and Chinese. Whatever the nature of this fundamental difference, let us, for ease of reference formulate the following observation:

(20) English nouns cannot be used as overt dummies, while Chinese nouns can.

4. Summary

The proposal as developed so far answers the questions in I and II. We proposed that there are two different types of unergative verbs, ascribing different underlying structures to xiao ‘laugh’ and pao-bu ‘run-step = run’ (see (10)). We extended our proposal to English, claiming that run falls in the same category as Mandarin pao-bu ‘run-step = run’. Consequently, English run has an empty non-referential object. In this respect, we argued, it is exactly like English eat, which, in its unspecified object use, also has an empty non-referential object. The reason why English has empty nominals in the object position of verbs like eat and run while Chinese uses overt dummy objects (chi-fan ‘eat-rice = eat’, pao-bu ‘run-step = run’) was said to be related (a) to the fact that Chinese has empty objects which are referential and specific (pro) in conjunction with (19) which states that if a language has object pro, it cannot have non-referential empty objects; (b) to the observation in (19).

5. The remaining questions: pao ‘run’ without bu ‘step’

The remaining questions have to do with differences between pao ‘run’ and chi ‘eat’ in contexts in which they do not have an overt object. As we saw, when chi ‘eat’ has no overt object, the object is interpreted as definite (pro). Pao ‘run’ is different: depending on the context, pao ‘run’ without bu ‘step’ either still means just ‘run’ (these are the cases of which we said above that bu is optional) or it means ‘escape/run away’. (We are not entirely sure as to the exact nature of the contexts in which bu is optional, all we can say is that modality plays a role.)

Let us start with the question why bu ‘step’ is optional whereas fan ‘rice’ is not. Or, phrased differently: Why can pao ‘run’ without bu ‘step’ still mean just ‘run’ while chi ‘eat’ without fan ‘rice’ cannot mean ‘eat (something or other)’? The fact that pao without an overt object still means ‘run’ (instead of ‘run
something specific’) forces us to conclude that, apparently, pao can use an empty nominal just like English eat and run. This, in turn, leads to the conclusion that Chinese allows two types of dummies: overt ones and empty ones. This obviously goes against (19) – thus constituting a problem for us.

This problem can be stated as follows: If pao can occur with an empty dummy, why can’t chi ‘eat’ cooccur with an empty dummy? We suggest that the difference between pao ‘run’ and chi ‘eat’ can be explained in a way similar to how we explained the difference between Chinese chi-fan ‘eat’ and pao-bu ‘run’ on the one hand and their English counterparts without the overt dummies on the other. Pao ‘run’ is different from chi ‘eat’ in that it only takes non-referential objects (see the examples in (12) and (14)) – hence, pro is not a possible object for pao. As a result, with pao, an empty object cannot be pro and this opens up the possibility of having a non-referential, empty dummy. In contrast, chi ‘eat’ does allow for referential objects. And, according to our reasoning, because if pro is available for an object position, that object position, if empty, can only be pro, chi ‘eat’ can never have an empty nominal dummy.

As indicated above, the difference between pao and chi in Chinese is the same as the difference we saw between English and Chinese on a bigger scale: if it is possible to have an empty object with a definite interpretation (pro), then empty objects can never be anything else and non-referential objects must be expressed with overt nominal dummies. Obviously, the claim in (19) must then be rephrased into (21), dropping the mention of the language:

(21) If an object position allows for pro, then that position cannot be occupied by non-referential empty objects. Such non-referential objects are expressed by an overt dummy nominal.

We now understand why pao ‘run’, unlike chi ‘eat’, can have an non-referential null object (it cannot have a pro object); in this respect it is just like English eat and run. There is a difference too: pao optionally allows for an overt dummy while English eat and run cannot. This is related to the observation in (19).

6. Ergativity shift

The final question to be addressed concerns the shift to ergativity for the verbs of the pao class. The explanation consists of two parts. First, we would like to refer to the fact that in Chinese, all [NP-verb-result] phrases are ergative. Consider the following sentences:
(22) a. zhe-dao cai shao-hu-le
    this-CL dish cook-burnt-PRF
    ‘this dish got burnt’

    b. zhe-shuang xie pao-huai-le
    this-CL shoe run-broken-PRF
    ‘this pair of shoes got broken’

It has been argued (Cheng 1989, Mulder and Sybesma 1992) that the NP in sentence initial position in these sentences is not a topicalized NP. The basic structure ascribed to sentences like these in Sybesma (1992) is the following:

\[(23) \text{V} \left[ \text{result denoting XP} \quad \text{NP} \quad X^0-\text{le} \right] \]

The matrix verb (\textit{cook} in (22)) only has an internal complement, the result denoting small clause (\textit{dish burnt}) (Hoekstra 1988). The NP (\textit{dish}), the subject of the small clause, moves to the matrix subject position, most likely for reasons of case. In this sense, complex VPs like the ones in (21) are ergative.

Secondly, Hoekstra (1990a) argues that the internal argument of ergative verbs always takes the form of a resultative small clause, consisting of a subject NP and a result denoting predicate (as in (22)). Furthermore, Hoekstra (1990a,b) argues that with verbs of movement and verbs of caused movement (like \textit{hit}), if there is no overtly expressed result denoting predicate, there is an empty predicate, typically meaning ‘away’: \textit{hit the ball} typically means \textit{hit the ball away}. The same applies to ergative verbs of motion: a sentence with \textit{pao} meaning ‘escape/run away’, like (24a), has the underlying structure as in (24b):

\[(24) a. \text{tamen pao-le}
    \quad \text{they run-PRF}
    \quad ‘they ran away/escaped’

    b. NP_i pao \left[ \text{Result XP} \quad X^0_{empty} \quad ‘away’ \right] \]

Strictly speaking, there is no difference with \textit{chi} ‘eat’ in this respect. Although \textit{chi} ‘eat’ is not a directional verb, it, too, leads to a typical result which can be characterized as ‘away’, viz., \textit{up}:

\[(25) a. \text{tudou quan chi-le}
    \quad \text{potatoes all eat-PRF}
    \quad ‘the potatoes got all eaten up’

    b. NP_i chi \left[ \text{Result XP} \quad X^0_{empty} \quad ‘away’ \right] \]

The sentence in (25a) is also an ergative sentence, the matrix V \textit{chi} ‘eat’ having a complement in the form of a resultative small clause with an empty predicate.
meaning up, as indicated in (25b) (see also Sybesma and Vanden Wyngaerd 1997).

We may conclude from this that the difference between chi ‘eat’ and pao ‘run’ as noted in the context of question III is not a real difference and the problem we noted turns out to be a non-problem. In view of the above, the sentences in (5), repeated here, do not constitute a minimal pair since the subject in (5a) is the external argument while the subject in (5b) is a derived subject, really the subject of the result denoting small clause predicate (with the empty head).

(5)  

a. Zhang San chi-le  
   Zhang San eat-PRF  
   ‘Zhang San ate it’  

b. Zhang San pao-le  
   Zhang San run-PRF  
   ‘Zhang San ran away/escaped’

If we take real minimal pairs, for instance (24) and (25), we see that there is no difference: both cases confirm the statement that in Chinese phrases of the form [NP V result-XP] are ergative. We can fill in the empty X° and get the minimal pair in (26) ((26b) being the same as (21b)). In short, there is no real difference between chi ‘eat’ and pao ‘run’ that needs to be explained.

(26)  

a. zhe-dao cai chi-guang-le  
   this-CL dish eat-up-PRF  
   ‘this dish got eaten up’  

b. zhe-shuang xie pao-huai-le  
   this-CL shoe run-broken-PRF  
   ‘this pair of shoes got broken’

7. Conclusion

We conclude that there are two types of unergative verbs, the ones with the “de­nominal structure” and those with the “full object structure”, as represented in (10). The reason why Chinese verbs like chi-fan ‘eat-rice = eat’ have an obligatory overt dummy object in the unspecified object reading is due to the claim in (21) which states that overt dummies obligatorily show up only if it is impossible to use an empty element with a non-referential interpretation in that position. The fact that English does not have overt dummies is explained by the same principle, which for English has the consequence that it does not need to use overt dummies, in conjunction with the observation in (19) which states that English
nouns are such that they cannot be used as dummies. The fact that the object bu ‘step’ in Mandarin pao-bu ‘run step = run’ is optional is also due to the combination of (21) and (19): according to the former it does not have to use an overt dummy and according to the latter it is free to do so.

Phrased differently, we claim that if a position can have a referential null object, we will not find a non-referential null object in that position (which gives us all the facts related to chi-fan ‘eat’); if we cannot have a referential null object in a position, we may find a non-referential null object (which, in conjunction with (20), gives us eat, run and pao(-bu) ‘run’).

Acknowledgments

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References


