The Fuzzy Boundary between Verb and Preposition: the case of serial instrumental verbs in Chinese

Fabrizio Angelo Pennacchietti
University of Turin

Let me, as an elderly Professor of Semitic languages who has the honour and the pleasure to count Antonio Loprieno among his first students in the 1970s, deal with a subject on which I am not directly competent but which has continued to intrigue me since those distant days.

It is known that Mandarin Chinese (pǔtōnghuà), the idiom spoken by the largest number of native speakers around the word, shares with certain languages of South-East Asia, Oceania, Central America and West Africa the phenomenon of serial verbs. It is a matter of syntactic constructions in which two or more verbs are set side by side in order to form a complex predicate that aims to express briefly a series of correlated events. Serial verbs generally share four properties: 1) they have the same grammatical subject, 2) their mutual relationship is not indicated by any morpheme, 3) they are subject to the same grammatical categories such as, for example, tense, aspect and/or mood, 4) they follow a fixed order (Tao 2009:210).

One particular type of verbal serialization is used to express semantic relationships which, in most of the world’s languages, are instead indicated by means of noun inflexions or with prepositions or postpositions (Müller-Lipenkova 2009:236). In this case the syntactic construction is composed of, in first position, a verb of a closed class, the class of the so-called ‘co-verbs’, and, in second position, the verb that acts as hinge of the construction. The verbs that occupy the first position are so much inclined to grammaticalization that they are often considered to be equivalent to prepositions, in any case to sui generis prepositions because they cannot but precede the main verb together with the noun or pronoun they govern. The direct object of the co-verbs corresponds in non-‘serializing’ languages to the indirect object or to other kinds of complements of a verb.

The co-verbs in Mandarin Chinese to which I am going to draw attention in this article are yòng “use, need” and ná “hold, keep”, for example in the following sentences:

\[ a) \text{ tā yòng bǐ xiě zì } \]
\[ \text{ he use pen write characters}^{1} \]
\[ \text{“he writes with the pen” (DeFrancis 1976:200; cf. Müller-Lipenkova 2009:250)} \]

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\(^{1}\) The noun zì “character; text” and the noun fàn “food; rice” in the example which follows are dummy object complements, since in Chinese transitive verbs (see xiě “write” and chī “eat”) must always be followed by an object.
b) tā ná zhe kuàizi chī fàn
he hold DUR.ASP. chopsticks eat food
“he eats with chopsticks” (Müller-Lipenkova 2009:243)

We have here two examples of a complex phrasal construction containing two events: The more important, represented in a) by the verb xiě “to write” and in b) by chī “to eat” – this will henceforth be distinguished by the letter alpha (α) – and the less important, represented by the verbs yòng “to use” and ná “to hold”, which will henceforth be represented by the letter beta (β). Translating the co-verbs yòng and ná with the preposition with obviously depends on the semantic affinity between these ‘instrumental’ verbs (yòng “use sth. in order to” and ná “hold sth. in order to”) and the preposition with, which has an analogous instrumental function. That said, the almost prepositional use of the verbs yòng “to use” and ná “to hold” in relation to their direct object, respectively bí “pen” and kuàizi “chopsticks”, is to be regarded as the result of the grammaticalization of an earlier complex phrasal construction in which the pivot was not the last event of the series, namely xiě “to write” and chī “to eat”, but rather the event “using” and “holding”, expressed respectively by the ‘full’ verbs yòng and ná.

That the Chinese co-verbs were diachronically normal verbs is taken for granted, all the more since the majority of them maintain the status of ‘full’ verbs when used alone (Tao 2009:218-219).

Prior to the translation 1) “he α writes (characters) β with the pen” of the serial construction a) tā yòng bí xiě zì – construction which at present permits no alternative interpretations – we must therefore postulate an earlier reading in which the first event to be enunciated (tā yòng bí) must have been the pivot of the construction. In this hypothesis the first and the second verbs of the series were probably correlated in such a way as to assign to the second verb the role of a subordinate of purpose value:

2) **“he β uses the pen for α writing” purpose correlation**

Construction b) tā ná zhe kuàizi chī fàn “he eats with chopsticks” can be considered too the result of the transformation of an original sentence of purpose value: 3) **“he holds the chopsticks in order to eat”, but for the fact that the verb ná, in addition to indicating the activity of “holding” (durative lexical aspect), can also express the fulfilment of “obtaining” (inchoative or punctual aspect). This would lead us to hypothesize, prior to b), a construction in which the two verbs described events that were progressive in time: first he takes (ná) the chopsticks, then begins, with them, to eat (chī): **“he takes the chopsticks and eats (consecutive correlation, Müller-Lipenkova 2009:243).**

It is natural to wonder what was the cognitive platform capable of supporting both translations 1) and 2), and how the diachronic passage from the first to the second translation can be justified.

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2 The particle zhe which follows the co-verb ná is a morpheme that normally indicates the durative aspect (DUR.ASP.) of a verb. With co-verbs it has a purely residual function, and hence may be omitted. On the use of zhe with co-verbs cf. Chao 1968:763 and Li-Thompson 1974:261, quoted by Tao 2009:224.

3 Currently, in order to express the purpose relationship use is made of the explicit expression tā yòng bí shí wèile xiě zì, literally “he use pen be for write character”. In fact, to this end the expression tā shì yòng bí xiě zì de can also be used; however, this last is also used to focus on the first event, i.e. in the sense “it is with the pen that he writes characters”. I am grateful to Barbara Leonesi of the University of Turin for her expert advice.
To tackle this question I shall borrow from cognitive linguistics (Langacker 1987, 1990, 1991) the distinction between TRAJECTOR and LANDMARK, which in Gestalt psychology concerns visual perception, and I shall turn to Viggo Brøndal (1887-1942) with regard to the main criteria that he identified to classify relationships in general and prepositions in particular. According to Brøndal (1967:54-55), in contrast with current cognitive linguistics, «a preposition has a central meaning, and has only one, whatever the object about which it is used: physical, biological or psychic phenomena (all real), political, aesthetic or religious bodies (all abstract), logical or mathematical objects (all formal)». He therefore maintained the prepositions can in the first place be classified thanks to the combination of two fundamental relationships from mathematical logic: transitivity and symmetry (Brøndal 1967:59-60). There is, he supposes, an isomorphism between logic of mathematical inspiration and that relational logic that guides our thinking and our speaking. From the interweaving of the opposition ‘+ or – transitive’ and ‘+ or – symmetrical’, the following grid is in fact obtained, in the boxes of which it is possible to situate the prepositions or other relational morphemes of the individual languages, defining their reciprocal position within a system⁴:

<table>
<thead>
<tr>
<th>asymmetrical intransitive prepositions</th>
<th>simply asymmetrical prepositions</th>
<th>asymmetrical transitive prepositions</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g. to, at</td>
<td>e.g. for</td>
<td>e.g. in, on, through</td>
</tr>
<tr>
<td>simply intransitive prepositions</td>
<td>simply symmetrical prepositions</td>
<td>symmetrical transitive prepositions</td>
</tr>
<tr>
<td>symmetrically intransitive prepositions</td>
<td>symmetrically transitive prepositions</td>
<td>e.g. with</td>
</tr>
</tbody>
</table>

For Brøndal (1967:59) prepositions such as English *in*, are ‘transitive’, because “x in y” and “y in z” always imply “x in z” (e.g. “Charles rests in his room” and “this room is in the flat” imply “x with z” (e.g. “at a particular moment Charles is playing cards with Louis” and “at the same moment Louis is playing cards with Mark” imply that “simultaneously Charles is also playing cards with Mark”). On the other hand the ‘transitive’ English preposition *with* is, according to Brøndal (1967:59), also ‘symmetrical’ because “x with y” implies “y with x” (e.g. “at this moment Charles is playing cards with Louis” implies that “at the same moment Louis is playing cards with Charles”).

In general the preposition, like any other relational morpheme, acts as a correlating morpheme between, on the one hand, a ‘first correlate’, i.e. the part of the discourse that governs that preposition and, on the other, a ‘second correlate’, namely the noun, pronoun or gerund before which the preposition is placed (Ceccato 1961a; 1961b; 1961c).

A characteristic shared by the ‘first correlate’ and the ‘second correlate’ having as correlating morpheme a ‘transitive’ preposition like *in* or *with* in English is that they are situated within the same spatiotemporal sphere (e.g. Charles’s resting and the room where he rests coincide in the same spatial and temporal dimension). I prefer to define the prepositions that Brøndal calls ‘transitive’ with the term ‘dimensional’, as they express a dimension that is circumscribed in time or in space.

The co-presence of the ‘first correlate’ in the same spatiotemporal sphere as the ‘second correlate’ is not relevant when the correlating morpheme is formed of a preposition that Brøndal calls ‘intransitive’, as in the case of English *to, at, of* and *from*. Since Brøndal's ‘intransitive’ prepositions refrain from indicating a dimension in time or space, I prefer to define them with the term ‘adimensional’ prepositions.

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⁴ The diagram which follows is a fairly faithful reproduction of the diagram offered by Brøndal in order to describe the prepositional system of English, see Brøndal 1967:198.
However, what distinguishes the prepositions that Brøndal calls ‘symmetrical’ (e.g. English of, from, by and with; Brøndal 1967:198) from the ‘asymmetrical’ prepositions (e.g. English to, at, for, in, on; Brøndal 1967:iibid.) is the fact that the ‘symmetrical’ prepositions put the ‘second correlate’ into relation with the ‘first correlate’, whereas, in contrast, the ‘asymmetrical’ prepositions put the ‘first correlate’ into relation with the ‘second correlate’. This is why I prefer to define Brøndal’s ‘asymmetrical’ prepositions as ‘applicative’, and his ‘symmetrical’ prepositions as ‘retroapplicative’.

In other words, Brøndal’s ‘asymmetrical’ prepositions, in my view, have the prerogative of channelling the flow of attention from the ‘first correlate’ or TRAJECTOR to the ‘second correlate’, i.e. to the noun phrase (noun, pronoun or gerund) preceded by the preposition. In contrast, Brøndal’s ‘symmetrical’ prepositions have the characteristic of channelling the flow of attention from the ‘second correlate’ or LANDMARK to the ‘first correlate’ or TRAJECTOR, i.e. towards that part of the discourse that governs a prepositional phrase.

In the attempt to better explain the difference between ‘asymmetrical’ (or ‘applicative’) and ‘symmetrical’ (otherwise ‘retroapplicative’) prepositions, we will first consider the ‘transitive asymmetrical’ (or ‘applicative dimensional’) prepositions, and particularly the preposition in. If this preposition intervenes in the description of an event (e.g. “Charles rests in his bedroom”), it follows that this event has a circumscribed dimension. In a sense, the ‘first correlate’ or TRAJECTOR (“Charles’s resting”) is placed, in terms of attention, on the ‘second correlate’ or LANDMARK (“his bedroom”). Likewise, if the ‘asymmetrical intransitive’ (or ‘adimensional applicative’) preposition at in the description of an event (e.g. “Charles works at the airport”), the ‘first correlate’ or TRAJECTOR (e.g. “Charles’s working”) is placed on the ‘second correlate’ or LANDMARK (“the airport”). Nonetheless, in this case, as the ‘adimensional’ preposition at was used, it follows that the event in question is proposed irrespective of the location in a circumscribed space.

In a word, I maintain that Brøndal’s ‘asymmetrical’, or ‘applicative’, prepositions are designed to link the ‘first correlate’ or TRAJECTOR to the ‘second correlate’ or LANDMARK. I shall represent the direction of the flow of attention marked by this class of prepositions in the following manner:

<table>
<thead>
<tr>
<th>applicative adimensional prepositions</th>
<th>appl. adimensional or dimensional prep.</th>
<th>applicative dimensional prepositions</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g. at: LANDMARK ⇒ TRAJECTOR</td>
<td>e.g. for: LANDMARK=TRAJECTOR / TRAJECTOR=LANDMARK</td>
<td>e.g. in: TRAJECTOR ⇒ LANDMARK</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Regarding the ‘simply asymmetrical’ or ‘simply applicative’ English preposition for, this may be used both for temporally or spatially dimensional relationships (e.g. “travel for an entire day”, expression of duration) and for temporally or spatially adimensional relationships (e.g. “prepare for the examinations”, purpose value).

If Brøndal’s ‘asymmetrical’, or ‘applicative’, prepositions seem destined to establish a constructive relation between the two ‘correlates’, it appears to me that, in direct contrast, the ‘symmetrical’ or ‘retroapplicative’ prepositions have the function of decomposing, separating or simply distinguishing the ‘first correlate’ from the ‘second correlate’. For example, in English with can deconstruct an unitary image by distinguishing from a ‘whole’ its component parts or its accessories (e.g. “a man with long arms and with a leather hat”) or by causing to emerge one constituent at the cost of another (e.g. “the two brothers argued at length” can be transformed into “the brother called Charles argued at length with his brother Mark”,
privileging Charles, or into “the brother called Mark argued at length with his brother Charles”, privileging Mark. The same may be said of the preposition of, e.g. if in the ‘applicative’ image “Charles sits on a bicycle” I focus on the “bicycle”, I obtain the noun phrase (‘retroapplicative’ image) “that bicycle of Charles’s”. In this case, since of is an ‘adimensional’ preposition, the relationship between that “bicycle” and “Charles” remains even if the referent of “Charles” momentarily doesn’t sit on the bicycle.

Hence I maintain that the ‘retroapplicative’ prepositions have the property of channelling the flow of attention away from the ‘second correlate’ or LANDMARK (e.g. “Charles”) towards the ‘first correlate’ or TRAJECTOR (e.g. “bicycle”). I shall represent the direction of the flow of attention signalled by the ‘retroapplicative’ prepositions in the following manner:

<table>
<thead>
<tr>
<th>Retroapplicative adimensional or dimensional prepositions</th>
<th>Applicable adimensional or dimensional prepositions</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g. of, from</td>
<td>e.g. in, on</td>
</tr>
<tr>
<td>LANDMARK = TRAJECTOR</td>
<td>TRAJECTOR = LANDMARK</td>
</tr>
<tr>
<td>Retroapplicative adimensional prepositions</td>
<td>Applicable dimensional prepositions</td>
</tr>
<tr>
<td>e.g. to, at</td>
<td>e.g. in, on</td>
</tr>
<tr>
<td>LANDMARK = TRAJECTOR</td>
<td>TRAJECTOR = LANDMARK</td>
</tr>
</tbody>
</table>

We come now to the crux. How can we graphically represent the relationship between the event β yòng bǐ and the event α xiē zi in the serial construction a) tā yòng bǐ xiē zi “he writes with the pen”?

The model of representation that I propose is inspired by the model of the deep structure of the sentence offered by Lucien Tesnière (Tesnière 1959) and by the model designed by Silvio Ceccato (Ceccato 1961a and 1961b). In its turn, the model I have adopted inspired the model of Constructive Adpositional Grammar, by Gobbo and Marco Benini (Gobbo-Benini 2011).

In the specific case the representation of the construction a) is at first sight counterintuitive because it requires the left-hand placing of event α (tā) xiē zi “he writes”, which in the spoken language is uttered after event β tā yòng bǐ “he uses the pen”. Consequently in the following representation this last has been placed on the right.

\[
\begin{array}{ccc}
\beta & \text{write characters} \quad \alpha & \text{use pen} \\
\text{TRAJECTOR = LANDMARK} & \text{2nd & 1st} \\
\end{array}
\]

This choice is justified by analogy with the representation of the relationship which, in the English sentence “he writes with the pen”, exists between the ‘first correlate’ or TRAJECTOR “he writes” and the ‘second correlate’ or LANDMARK “the pen” thanks to the ‘retroapplicative dimensional’ preposition with. This preposition, which Brøndal places in the lower right-hand box of his diagram, in fact foresees that the flow of attention moves from the LANDMARK (β) to the TRAJECTOR (α). The ‘first correlate’ or TRAJECTOR is however the element that is focused.

\[\text{Cf. Pennacchietti 2011.}\]
On the basis of this principle, the representation of the sentence “he writes with the pen” is, in my opinion, as follows:

(2) $\alpha$ \text{TRAJECTOR} $\Rightarrow$ \text{LANDMARK} $\beta$

\[
\begin{array}{c}
\text{he writes the pen} \\
\text{1st}
\end{array}
\]

\[
\begin{array}{c}
\text{with} \\
\text{2nd}
\end{array}
\]

In this case the preposition with fulfils the same function as in Mandarin Chinese is entrusted to the serialization 1st co-verb – 2nd main. As an alternative to representation (1) we may thus propose representation (3) in which the co-verb yòng “use” is now made equivalent to a preposition:

(3) $\alpha$ \text{TRAJECTOR} $\Rightarrow$ \text{LANDMARK} $\beta$

\[
\begin{array}{c}
\text{xiē zi} \\
\text{2nd}
\end{array}
\]

\[
\begin{array}{c}
\text{yòng} \\
\text{1st}
\end{array}
\]

Let us now see how we can represent the construction a) if we interpret it as “he uses the pen to write”, an interpretation which diachronically seems to have preceded its current interpretation, before falling into disuse as a consequence of the grammaticalization of the ‘full’ verb yòng “use” in the function of instrumental co-verb. This interpretation, however, is not accepted today since, in order to express the complement of purpose or aim, more explicit constructions have been developed, such as tā yòng bǐ shì wèile xiē zi and tā shì yòng bǐ xiē zi de, where the verb shì “be” appears together with, respectively, the morphemes wèile “for” and de.

(4) purpose correlation

“he uses the pen for writing’

(4) $\alpha$ \text{LANDMARK} $\Rightarrow$ \text{TRAJECTOR} $\beta$

\[
\begin{array}{c}
\text{xiē zi} \\
\text{2nd}
\end{array}
\]

\[
\begin{array}{c}
(tā) \text{yòng bǐ} \\
\text{1st}
\end{array}
\]

In this case the TRAJECTOR, i.e. the ‘first correlate’, is represented by the event $\beta$ (tā) yòng bǐ. It follows that the LANDMARK, the ‘second correlate’, consists of the event $\alpha$ xiē zi. In order to understand the reason for this representation it is useful to take into consideration, by analogy, the relationship which, thanks to the preposition for, pertains between the ‘first correlate’ or TRAJECTOR “he uses the pen” and the ‘second correlate’ or LANDMARK “write” in the English sentence “he uses the pen for writing / in order to write”. We have in fact seen that, in its purpose meaning, the English preposition for (/in order to) behaves like an ‘applicative adimensional’ preposition (cf. the upper left-hand box in Brøndal’s diagram) with a purpose or a benefactive value. It serves to direct the flow of attention from the TRAJECTOR to the LANDMARK [\text{LANDMARK} $\Rightarrow$ \text{TRAJECTOR}], this last being understood as a future prospect. Note that, both in representations (1), (2) and (3), and in representation (4), the arrow is directed
leftwards [←], alluding to the direction of the flow of attention which equates the preposition with and the preposition for (/in order to).

(5) purpose correlation
“he uses the pen for writing”

\[
\begin{array}{c}
\alpha\text{ LANDMARK }= \text{ TRAJECTOR }\beta \\
\text{writing} \quad \text{he uses the pen} \\
\text{2nd} \quad \text{1st}
\end{array}
\]

This circumstance, in my view, confirms the hypothesis that co-verb constructions like a) tā yòng bǐ xiě zi originally had purpose value, assigning to the first verb in the sequence the function of pivot of the phrasal structure. On the other hand it is implicit in the very meaning of any instrument that it serves to carry out some operation and to attain a particular end.

The cognitive platform shared by the instrumental correlation and by the purpose one can be represented as follows:

(5a)  
\[
\begin{array}{c}
\alpha\text{ LANDMARK/TRAJECTOR }= \text{ TRAJECTOR/LANDMARK }\beta \\
\text{tā} \quad \text{LAN.} \quad \text{LAN.} \\
\text{zi} \quad \text{xiě} \quad \text{bǐ} \quad \text{yòng}
\end{array}
\]

(5b)  
\[
\begin{array}{c}
\alpha\text{ LANDMARK/TRAJECTOR }= \text{ TRAJECTOR/LANDMARK }\beta \\
\text{“he”} \quad \text{LAN.} \quad \text{LAN.} \\
\text{“characters” “write” “pen” “use”}
\end{array}
\]

If event α is the TRAJECTOR an instrumental correlation is obtained; whereas if the TRAJECTOR is represented by event β a purpose correlation is obtained. In both cases the flow of attention marked by the arrow [←] is directed from the right to the left.

But some details remain to be clarified. Taking my inspiration from the model developed by Lucien Tesnière (1959:102-107) for the dependency grammar, I represent the verb, i.e. the predicate, by means of the branches slanting rightwards. From these branches others go leftwards, and at their lower termination are found, in hierarchical order from above to below, the arguments of the predicate and its circumstantial elements.

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6 At the lower end of a rightward branch the substantive and its modifiers are also situated. The modifiers are situated at the lower end of leftward branches.
As regards the circumstantial elements, they occupy the highest position in hierarchical terms and, if they are marked by ‘dimensional’ prepositions such as in or with or by equivalent morphemes or syntactic constructions, they are arranged on a rightward branch as in the representation (2).

In representation (1) of a) tā yòng bǐ xiě zi it is event α (tā xiě zi “he writes”) that functions as TRAJECTOR. Consequently event β (tā yòng bǐ “he uses the pen”), functioning as LANDMARK, becomes a ‘dimensional’ circumstantial of instrumental value.

In contrast, in the hypothetical purpose meaning of a) it is event β (tā yòng bǐ “he uses the pen”) that functions as TRAJECTOR. Consequently event α (tā xiě zi “he writes”), functioning as LANDMARK, becomes an ‘adimensional’ circumstantial of instrumental value.

In contrast, the relationship between the subject and the verb (e.g. tā - yòng “he - uses” and tā - xiě “he - writes”) is interpreted as an ‘applicative dimensional’ correlation, to some degree similar to the correlation established by the English preposition in (right-hand box of Brøndal’s diagram). In contrast, the relationship between the verb and its direct object (e.g. yòng - bǐ “use - pen” and xiě - zi “write - characters”) is interpreted as an ‘applicative adimensional’ correlation, to some degree similar to the correlation established by the prepositions to and for, whose equivalents in some Romance languages are also used to mark the accusative case (cf. Spanish a and Romanian pe).

The arguments or the circumstantials of the predicate marked by a ‘retroapplicative adimensional’ preposition such as of and from or by equivalent morphemes (cf. because) or syntactic constructions are arranged on a leftward branch. For example, the co-verb construction c) tā zhù Zhōngguó xué le Hányǔ (Müller-Lipenkova 2009:243) [he live China learn PERF.ASP. Chinese] “he learned Chinese because he lived in China”, a causal construction, can be represented as follows:

\[
\begin{array}{c}
\text{causal correlation} \\
\text{“he learned Chinese because he lived in China”}
\end{array}
\]

\[
\begin{array}{c}
\alpha \quad \text{LANDMARK} \Rightarrow \text{TRAJECTOR} \quad \beta \\
\text{TRAJ} \Rightarrow \text{LAN.} \\
\text{TRAJ} \Rightarrow \text{LAN.} \\
tā \\
tā \\
\text{LAN.} \Leftarrow \text{TRAJ.} \\
\text{LAN.} \Leftarrow \text{TRAJ.} \\
\text{Zhōngguó} \quad \text{zhù} \quad \text{Hányǔ} \quad \text{xué le}
\end{array}
\]

\[
\begin{array}{c}
1^\text{st} \\
2^\text{nd}
\end{array}
\]
In this case the co-verb is constituted by da zhù “live in”. Note that, whereas in representation (4) of the purpose correlation the arrow pointing leftward (α LANDMARK ⇒ TRAJECTOR β) alludes to a prospective future (“in order to write”), in representation (6) of the causal correlation the rightward arrow (α LANDMARK ⇒ TRAJECTOR β) alludes, in contrast, to a previous fact (“because/since he lived in China”). In English the opposite of “he learned Chinese because he lived in China” could be “his stay in China entailed his learning Chinese”:

(7) “his stay in China entailed his learning Chinese”

Reviving and retouching models of the deep structure of the sentence learned long ago, I attempted to reconstruct and represent the process of grammaticalization which I presume involved the Mandarin Chinese verbs yòng “use, need” and ná “hold” before they became co-verbs. In the course of this process, though yòng and ná remained verbs lexically, they were placed functionally at the fuzzy boundary between the category of verb and that of preposition, conveying the instrumental value of the English preposition with. The hypothesis maintained here is that the correlation between the main verb and the co-verb yòng or ná originated from a serial construction of purpose value, having yòng or ná as main verb. In this case the future main verb would have taken the role of complement of end or aim. Finally, I maintain that the purpose serial construction and the instrumental serial construction
constitute each other’s opposite, sharing the same direction of flow of attention involved in the dynamic of the TRAJECTOR-LANDMARK opposition.

In the purpose construction this flow may be defined as ‘applicative’, as it arises from the TRAJECTOR and is directed towards the LANDMARK:

\[
\alpha \text{ LANDMARK} \leftarrow \text{TRAJECTOR} \beta [yòng / ná]
for (in order to)
\]

In contrast, in the instrumental serial construction the flow of attention may be defined as ‘retroapplicative’, as it arises from the LANDMARK and is directed towards the TRAJECTOR:

\[
\alpha \text{ TRAJECTOR} \leftarrow \text{LANDMARK} \beta [yòng / ná]
with
\]

Bibliography


