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Verb-to-preposition reanalysis in Chinese*

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12.1 Introduction

Since the introduction of the Minimalist Program (cf. Chomsky 1995 and subsequent works) relegating variation to the lexicon, various proposals have adopted this approach and located change in the discrete features of individual lexical items (cf. a.o. Roberts and Roussou 1999, 2003; Longobardi 2001*a*; Whitman 2000; Whitman and Paul 2005). They differ, however, with respect to the hypotheses made about the triggering factors of syntactic change and the consequences resulting from change. Both Longobardi (2001*a*) and Roberts and Roussou (2003) consider the disappearance of an item as change in its ultimate form, maximally implementing Longobardi's (2001*a*: 294) principle 'minimize feature content', by the reduction of semantic and phonological features to zero. Within Longobardi's *Inertial Theory*, inspired by Keenan (1998; also cf. Keenan 2002, this volume), this loss may even constitute the decisive factor for the grammaticalization starting from this item and the associated semantic changes. Furthermore, Roberts and Roussou (2003) as well as Longobardi (2001*a*) adhere to the widespread idea that syntactic change induces simplification.

In Roberts and Roussou's (2003: 128–9) view, reanalysis of one lexical category as another lexical category does not qualify as grammaticalization, but is considered as a preliminary step to grammaticalization 'proper', the latter resulting in a new functional item. Accordingly, a preposition resulting from V-to-P reanalysis is claimed to remain lexical and to still have relation properties in the sense of Hale and Keyser (1993: 128). No loss of the external

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argument ('pruning') is said to have occurred, the latter being a crucial component in the V-to-P reanalysis according to Whitman's (2000) analysis.

For these various assumptions, a language such as Chinese with numerous cases of V-to-P reanalysis attested throughout its history of more than 3000 years offers an ideal test case. The many instances in e.g. modern Mandarin where the verb and the preposition coexist question the general validity of a central claim in Longobardi (2001*a*), viz. that the disappearance of the 'original' item acts as a trigger for syntactic change. Likewise, the widely accepted scenario of semantic 'bleaching' going hand in hand with phonological 'erosion' cannot be upheld, given the perfect homophony (including the tones) of verb- preposition pairs in modern Mandarin. Furthermore, the longevity of prepositions resulting from V-to-P reanalysis challenges Roberts and Roussou's (2003: 129) assumption that this kind of reanalysis represents only a preliminary step to grammaticalization 'proper'. Nor do prepositions resulting from V-to-P reanalysis (and hence lexical) in modern Mandarin and earlier stages retain the relational status of VPs or behave like V/P hybrids. On the contrary, once the reanalysis as preposition has taken place, the reanalysed item displays the same syntactic properties as the other prepositions. As a matter of fact, prepositions and verbs in Chinese must be distinguished from the earliest available documents on. Last, but not least, given that in Chinese the primary historical source for prepositions derived from verbs are adjunct clauses (cf. Whitman 2000; Whitman and Paul 2005), no simplification in structure is observed after V-to-P reanalysis has taken place, the only difference induced by this reanalysis consisting in relabelling the adjoined projection.

The present article is organized as follows. Section 12.2 examines in detail the earliest available documents in Chinese (13th-11th c. BC) and provides extensive evidence for the distinction between prepositions and verbs. In Section 12.3, we turn to modern Mandarin and again argue for the differences between verbs and prepositions. Section 12.4 concludes the article and briefly discusses the tacit assumptions underlying frameworks such as Longobardi's (2001*a*) 'Inertial Theory' and the conception of 'preliminary change' defended by Roberts and Roussou (2003).

12.2 Prepositions in the Shang bone inscriptions (13th–11th c. BC)

In order to illustrate our claim that in all periods of the Chinese language prepositions are clearly distinguished from verbs, we have chosen the extreme ends on the timescale, i.e. the earliest documents available for Chinese (13th–11th c. BC), on the one hand, and modern Mandarin, on the other. The same

demonstration could equally be made for any other synchronic stage located between these two extremes.

In the earliest available Chinese texts, i.e. the Shang inscriptions (13th-11th c. BC),¹ the following three prepositions are attested: 于 *yu* ‘in, to’, 在 *zai* ‘in, at’, 自 *zi* ‘from’.² As will be illustrated throughout this section, these prepositions can introduce a range of locative expressions, i.e. spatial, temporal, and abstract location. This is important insofar as temporal and abstract location are never taken into account by the proponents of a verbal interpretation of *yu*, *zai*, and *zi*, whose only ‘argument’ for the verbal analysis of these items is the apparently existing ‘choice’ between a verbal and a prepositional translation for a spatial locative, as in the case of *zai shi Dao* in (1) (‘being at the camp Dao’ vs ‘at the camp Dao’):

- (1) 王在師稻豢 (H 24255)³
 Wang [_{vP} [_{PP_{spat.}} zai shi Dao] huan]
 king at camp Dao raise
 ‘The king at the camp Dao will raise [animals].’

In the case of an abstract locative as in (2), however, the interpretation of *zai* as a verb results in a nonsensical meaning: ‘The prince will not end (and) be in misfortune’.

- (2) 子商亡斷在囿 (H 02940)
 Zi shang [_{vP} wang duan [_{PP_{abstr.}} zai huo]]
 prince Shang have:not end in misfortune
 ‘The prince Shang will not end in misfortune.’

Temporal locatives likewise render a verbal interpretation for the projections headed by *zai* (cf. (1)–(2)) and *yu* (cf. (3)) implausible:

- (3) 王于七月入于商 (H 7780 r.)
 Wang [_{vP} [_{PP_{temp.}} yu qi -yue] [_{vP} ru [_{PP_{spac.}} yu shang]]]
 king in seven-month enter in Shang
 ‘The king in the seventh month will enter the Shang city.’

¹ The corpus of the Shang inscriptions consists of more than 150,000 fragments carved on ox bones and tortoise shells among which more than 26,000 complete sentences can be identified.

² While the synchronic studies of the Shang inscriptions assign prepositional status to *yu*, *zai*, and *zi* (cf. Chen Mengjia 1956; Guan Xiechu 1953; Kryukov 1980; Huang Weijia 1987; Djamouri 1988; Shen Pei 1992; Zhang Yujin 1994; Djamouri and Paul 1997), the few assessments of these items from a diachronic point of view insist on their verbal status or verbal origin (Guo 2005; Mei 2004; Pullenblank 1995).

³ The following abbreviations are used in glossing examples: CL classifier; NEG negation; DUR durative aspect; PERF perfective aspect; PL plural (e.g. 3PL = 3rd-person plural); SG singular; SUB subordinator.

Note that to translate the spatial locative *yu shang* in the postverbal position in (3) as ‘go to the Shang city’ does not make sense either, the preceding verb *ru* ‘enter’ requiring a locational complement.

Last, but not least, (4) provides an example for a spatial locative PP headed by *zi* ‘from’.⁴

- (4) 王自余入 (H 3458)
 Wang [_{vP} [_{PP_{spat}} zi yu] ru]
 king from Yu enter
 ‘The king will enter from Yu.’

12.2.1 Prepositions cannot function as predicates

The linguists who insist on the verbal characteristics of the prepositions *yu*, *zai*, or *zi* rely on their textual understanding of the sentence and do not provide any criteria for when to interpret these items as prepositions and when as verbs (cf. Guo 1997, 2005; Mei 2004 among others). In the following, we will therefore offer an array of arguments in favour of the prepositional status of *yu*, *zai*, and *zi* in the Shang inscriptions.

First, while transitive verbs (5a) can occur without their object (5b), the prepositions *yu*, *zai*, and *zi* always require an object; hence, structures such as (5c) are not attested.

- (5) a. 王伐土方 (H 6354)
 Wang fa tu fang
 king fight Tu tribe
 ‘The king will fight the Tu tribe.’
- b. 王伐 (H 7587)
 Wang fa
 king fight
 ‘The king will fight.’
- c. * S 于/在/自 Ø V
 * S [_{vP}[_{PP} yu/ zai/ zi Ø] V]
 to / at / from

Furthermore, while VPs can be negated and be selected by auxiliaries, PPs cannot. Accordingly, a structure such as (6) is not attested:

⁴ The few occurrences of the verb *zi*, generally glossed as ‘to follow’ (cf. Pulleyblank 1995: 52), are in fact only attested in transmitted texts of the late archaic period (5th c.–3rd c. BC).

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- (6) * S 勿/其/不 于/在/自 NP
 * S wu/ qi / bu [PP yu/ zai/ zi NP]
 must:not/ FUT/ neg to / at / from

These observations indicate that the items *yu*, *zai*, and *zi* cannot function as predicates and can therefore not be assigned verbal status.

12.2.2 *Argument vs adjunct position: PPs pattern with NPs*

Another piece of evidence for the prepositional status of the projections headed by *yu*, *zai*, or *zi* is the fact that they do not pattern with VPs, but with NPs. More precisely, PPs show the same positional asymmetry as NPs: arguments obligatorily occupy the postverbal position, whereas adjuncts may occur in the postverbal and the preverbal position (cf. Djamouri and Paul 1997).⁵

The examples below, (7)–(8), show the argument NP in postverbal position. In the double-object construction, the indirect object and the direct object likewise follow the verb (cf. (8)):

- (7) 我伐羌 (H 6620)
 Wo [vP fa [NP qiang]]
 1PL fight Qiang
 ‘We will fight the Qiang tribesmen.’
- (8) 來乙未侑祖乙宰 (H 721 r.)
 Lai yiwei [vP you [NP zuyi] [NP lao]]
 coming yiwei offer Zuyi penned:sheep
 ‘The next *yiwei* day, one will offer Zuyi a penned sheep.’

Like argument NPs, argument PPs occur in the postverbal position (cf. (9)–(11)). This holds e.g. for the goal PP in the double-object construction. Note that the three prepositions *yu*, *zai*, and *zi* may all head such a goal PP:

- (9) 王其侑于小乙羌五人 (H 26922)
 Wang qi [vP you [PPgoal yu xiao-yi] [NP qiang wu ren]]
 king FUT offer to Xiaoyi Qiang five man
 ‘The king will offer Xiaoyi five Qiang tribesmen.’
- (10) 其侑在父庚 (W 1374)
 [vP Qi you [PPgoal zai fu geng]]
 FUT offer to father Geng
 ‘One will offer [the sacrifice] to Father Geng.’

⁵ The postverbal position of arguments in the Shang inscriptions invalidates Li and Thompson’s (1974) assumption of SOV as main word order in Archaic Chinese. Note that they do not take into account the Shang inscriptions at all.

- (11) 其登鬯自小乙 (H27349)
 [_{vP} Qi [deng [_{NP} chang] [_{PPgoal} zi xiaoyi]]]
 FUT elevate.in.sacrifice millet.alcohol from Xiaoyi
 ‘One will sacrifice millet alcohol to (a whole genealogy of ancestors starting from) the ancestor Xiaoyi.’

Examples (12) and (13), where the PP is the only argument of the verb, illustrate a spatial locative (12) and an abstract locative (13) in postverbal position:

- (12) 方允其來于汙 (H 6728)
 Fang yun qi [_{vP} lai [_{PPloc.} yu zhi]]
 Fang effectively FUT come to Zhi
 ‘Fang will effectively come to Zhi.’
- (13) 婦姘魯于黍年 (H 10132 r.)
 Fu jing [_{vP} lu [_{PPabst.loc} yu shu nian]]
 lady Jing be:plentiful. in millet harvest
 ‘Lady Jing will be plentiful in her millet harvest.’

In contrast to argument NPs and PPs, adjunct NPs and PPs may occur both postverbally and preverbally, including the pre-subject position. In fact, adjunct NPs—‘bare NP adverbs’—turn out to have the same distribution as adjunct PPs, a situation equally holding for English (cf. Emonds 1987; McCawley 1988, among others) and for modern Mandarin (cf. Ng 1987).⁶ In (14), a temporal adjunct NP occurs in sentence-initial position. (15)–(17) illustrate adjunct PPs in the same position; these examples are important insofar as they show again that PPs headed by *yu*, *zai*, and *zi* are not associated with a ‘covert’ subject position, there being no obvious controller for a PRO. This again demonstrates that *yu*, *zai*, and *zi* have to be analysed as prepositions and not as verbs.

- (14) 今六月王入于商 (H7775)
 [_{NP} Jin liu yue] wang ru yu shang
 actual six month king enter in Shang
 ‘This sixth month, the king will enter the Shang city.’
- (15) 于辛巳王圍召方 (H33023)
 [_{PP} Yu xinsi] wang wei shao fang
 on *xinsi* king surround Shao tribe
 ‘On the *xinsi* day, the king will surround the Shao tribe.’

⁶ By contrast, the few adverbs attested in the Shang inscriptions such as *yun* ‘indeed’, *yi* ‘also’, *ji* ‘already’ can only appear in the preverbal position below the subject (cf. (14) above).

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- (16) 自旦至食日不雨 (TUNNAN 42)
 [PP Zi dan] zhi shiri bu yu
 from dawn until mealtime NEG rain
 ‘From dawn to mealtime, it will not rain.’
- (17) 在 𠄎 王其先邁捍 (Y 593)
 [PP Zai nü] wang qi xian gou han
 at Nü king FUT advance meet opposition
 ‘At Nü, the king will advance and meet an armed opposition.’

In the examples below, the adjunct NPs and PPs occupy the preverbal position right of the subject. (18) illustrates the case of an adjunct NP in the preverbal position, whereas (3) and (4) above and (19) show adjunct PPs headed by *yu*, *zai*, and *zi* in the same position:

- (18) 王今丁巳出 (H7942)
 Wang [vP [NP jin dingsi] chu]
 king actual Dingsi go:out
 ‘The king on this Dingsi day goes out.’
- (19) 王在十二月在襄卜 (H24237)
 Wang [vP [PP zai shi'er -yue] [vP [PP zai xiang] [vP bu]]]
 king at twelve-month at Xiang divine
 ‘The king in the twelfth month at Xiang made the divination.’

Finally, like arguments, adjunct NPs and PPs may also occupy the postverbal position:

- (20) 方其至今月 (H20479)
 Fang qi zhi [NP jin yue]
 Fang FUT arrive present month
 ‘The Fang tribesmen will arrive this month.’
- (21) 呼多犬网鹿于麓 (H10976r)
 Hu duo quan [vP wang lu [PP yu nong]]
 order numerous dog.officer net deer at Nong
 ‘Call upon the many dog-officers to net deer at Nong.’
- (22) 乞令吳以多馬亞省在南 (H564r)
 Qi ling wu yi duo maya [vP xing]
 Qi order Wu lead numerous military.officer inspec
 [PP_{spat.} zai nan]]
 at south
 ‘Officer Qi will order Wu to lead the numerous military officers to carry out an inspection in the south.’

- (23) 其品祠于王出 (H23713)
 Qi [_{vP} pin, ci [_{PP} yu [_S wang chu]]]
 FUT pin.sacrifice ci.sacrifice at king go.out
 ‘One will perform a *pin* and a *ci* sacrifice when the king goes out.’

Note that in (23) *yu* selects a sentential complement which provides another piece of evidence against its alleged verbal status.⁷

12.2.3 Focalization structures in the Shang inscriptions

As stated above, arguments are confined to the postverbal position whereas adjuncts may appear both pre- and postverbally. However, when focalized, arguments and adjuncts alike must occur in the preverbal position right of the subject. (For a detailed discussion on focalization in the Shang inscriptions, see Djamouri (1988, 2001).

Starting with argument NPs, (24a) and (24b) illustrate the case where the focalized object NP of a simple transitive verb occupies the preverbal position, preceded by the copula *wei* ‘be’, or *hui* ‘must be’:

- (24) a. 王勿唯易白焱比 (H 6460 r.)
 Wang [_{NEG} wu [_{vP} wei [_{FocP} [_{NP} yang bo shi] [_{vP} bi]]]]
 king NEG be Yang lord Shi follow
 ‘It must not be Shi, lord of Yang, that the king will follow.’
- b. 王直 易白焱 比 (ibid.)⁸
 Wang [_{vP} hui [_{FocP} [_{NP} yang bo shi] [_{vP} bi]]]]
 king must:be Yang lord Shi follow
 ‘It must be Shi, lord of Yang, that the king will follow.’

In a double-object construction, either the direct object or the indirect object can be focalized:

- (25) 直 羊侑于母丙 (H 2523)
 [_{vP} Hui [_{FocP} [_{NP} yang] [_{vP} you [_{PP} yu mu bing]]]]
 must:be sheep offer to ancestress Bing
 ‘It must be a sheep that one will offer to Ancestress Bing.’
- (26) 唯祖乙侑匚 (H 1573)
 [_{vP} Wei [_{FocP} [_{NP} zuyi] [_{vP} you po]]]]
 be Zuyi offer po.sacrifice
 ‘It is to Zuyi that one will offer a *po* sacrifice.’

⁷ Whether *yu* should rather be analysed as a complementizer here is orthogonal to the issue at hand.

⁸ In the Shang inscriptions, often varying predictions concerning the same issue are made in order to determine the auspicious one, thus explaining the abundance of focalization structures.

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For argument PPs, the presence of a copula is optional, as illustrated in (27b). (27b) is the matching sentence for (27a), i.e. it shares with it the presupposition—‘the king will present an immolation’—but varies on the goal PP, which is focalized (‘to Fuding’ vs ‘to Zuyi’).

- (27) a. 王侑歲于祖乙 (H 3213)
 Wang you sui [PP yu zuyi]
 king present immolation to Zuyi
 ‘The king will present an immolation sacrifice to Zuyi.’
- b. 于父丁侑歲 (ibid.)
 [vP [FocP [PP Yu fuding] [vP you sui]]]
 to Fuding present immolation
 ‘It is to Fuding that [the king] will present an immolation.’

Finally, (28) and (29) illustrate the focalization of adjunct NPs and PPs, for which the presence of a copula seems obligatory:

- (28) 帝唯今二月令雷 (H 14129 r.)
 Di [vP wei [FocP [NP jin er -yue] [vP ling lei]]]
 Di be actual two-month order lightning
 ‘It is in this second month that Di will order lightning.’
- (29) 奭于甲子酉 𩇛 (H 32053)
 [vP Hui [FocP [PP yu jiazi]] [vP jiu dui]]]
 must:be in *jiazi* *jiu.sacrifice* *dui.sacrifice*
 ‘It must be on the *jiazi* day that one will perform a *jiu* and a *dui* sacrifice.’

Once again, the preceding data involving focalization not only demonstrate that PPs pattern with NPs, but also that SVO is the basic word order in the Shang inscriptions, SOV order arising in focalization structures only.

12.2.4 *Interim summary*

The detailed investigation of the Shang inscriptions provides us with a straightforward picture where the difference between verbs and prepositions is attested since the earliest available documents.

First, prepositions in these inscriptions cannot function as predicates. Accordingly, prepositions lack an ‘extended’ P-projection to assign the external theta-role, which clearly sets them apart from verbs.

Second, prepositions in the Shang inscriptions cannot be stranded, in contrast to verbs which allow for an empty object position. (This situation equally obtains for modern Mandarin, cf. Section 12.3 below.)

Third, PPs pattern with NPs, not with VPs, and show the same positional argument/adjunct asymmetry as NPs. Consequently, both PP and NP arguments are confined to the postverbal position, except in focalization structures where they must occur preverbally below the subject. Adjunct PPs and NPs, on the other hand, can occupy three different positions, i.e. the postverbal, the preverbal (below the subject), and the sentence-initial position. When focalized, however, PP and NP adjuncts—like arguments—must appear in the preverbal position right of the subject.

These observations also challenge current assumptions concerning V-to-P reanalysis, often presented as the model case of grammaticalization in Chinese linguistics. According to the generally retained scenario, prepositions are ‘grammaticalized’ from verbs occurring in a serial verb construction (SVC). Putting aside the confusing practice in Chinese linguistics to use the label SVC as an indiscriminate cover term for any surface string containing more than one verb (cf. Paul 2008), it is important to stress that it would be anachronistic to use the same scenario for the Shang inscriptions, the emergence of SVC being commonly dated about ten centuries later, i.e. after the third century AD.⁹

Notwithstanding this chronology, some scholars nevertheless try at all costs to produce a verbal derivation when confronted with the full-fledged prepositions *yu*, *zai*, and *zi* in the Shang inscriptions and reconstruct a ‘corresponding’ verb (cf. a.o. Mei 2004; Guo 2005).

The efforts to construe a ‘verbal origin’ for *yu*, *zai*, and *zi* are also motivated by the desire to save the ‘unidirectionality principle’ of grammaticalization, given that the verbs *zai* and *zi* are attested in later texts only.¹⁰ (For the factual and conceptual problems related to this principle, cf. Lightfoot 2002b; Newmeyer 1998: ch. 5.)

As we will see in the next section, both the preposition *zai* and the verb *zai* exist in modern Mandarin, along with other pairs of homophonous verbs and prepositions. This coexistence has often been misinterpreted as an indication of the verbal nature of prepositions in Chinese.

⁹ A strict definition of SVC as an object-sharing structure (cf. Collins 1997b) leads to the conclusion that the main verb in such a structure remains the head of a complex VP and cannot be reanalysed as a preposition (cf. Whitman and Paul 2005). Only verbs in adjunct position or those contained in the complement of the main verb are liable to undergo V-to-P reanalysis. Consequently, SVCs are not a privileged source for V-to-P reanalysis: the primary historical source for prepositions derived from verbs are adjunct clauses. Note that in the Shang inscriptions structures where a clause is adjoined to the main verb are not attested, nor are object-sharing SVCs (cf. Djamouri 2005). Instead, sequences containing several verbs have to be analysed as complex sentences.

¹⁰ The verb *zai* ‘to be at’ is first attested in the Western Zhou bronze inscriptions (10th c. BC). The few alleged examples of *yu* as verb ‘to go’ (dating from the 8th c. BC) all turn out to be cases where the preposition *yu* introduces an abstract or a spatial locative (cf. Djamouri and Paul 1997). For *zi*, cf. n. 4 above.

12.3 Modern Mandarin

Roberts and Roussou (2003: 128) claim that prepositions resulting from V-to-P reanalysis retain predicative properties. This is reminiscent of the widespread idea in Chinese linguistics that prepositions in modern Mandarin ‘still’ display verbal characteristics and should be labelled ‘coverb’, thus reflecting the supposedly hybrid character of these items (cf. a.o. Simon 1958, Chao 1968, Liang 1971, Li and Thompson 1981, and references therein).

12.3.1 *Adjunct position and alleged verbal properties of PPs*

Evidence provided for the alleged verbal nature of prepositions crucially involves the position right of the subject, i.e. the position for phrases with an adverbial function adjoined to (a projection dominating) the main VP. As (30)–(32) illustrate, adverbs, NPs, PPs, and (null subject) clauses can all function as adjuncts. Accordingly, to occur in the adjunct position is *not* tantamount to PP status, an equation often wrongly established in the literature.

- (30) 他星期天 / 仔仔細細地整理房間。
 Ta [_{NP} xingqitian] [_{vP} [_{adverb} zizixixide] [_{vP} zhengli fangjian]]
 3SG Sunday carefully tidy room
 ‘He carefully tidies up his room on Sundays.’
- (31) 我從農村回來。
 Wo [_{vP} [_{PP} cong nongcun] [_{vP} huilai]]
 1SG from village return
 ‘I return from the village.’
- (32) 他看著電視吃飯。
 Ta [_{vP} [_{adjunct clause} PRO kan -zhe dianshi] [_{vP} chi fan]]
 3SG watch-DUR TV eat food
 ‘He eats watching television.’

Furthermore, given that negation and adverbs mark the left edge of the *vP* (inclusive of adjoined material), they precede adjunct PPs. The resulting sequence ‘Neg/Adv PP VP’ is often adduced as evidence for an alleged compatibility of PPs with negation and adverbs:

- (33) 我已經給瑪麗打了半個小時的電話。
 Wo [_{vP} [_{adverb} yijing [_{vP} [_{PP} gei Mali] [_{vP} da -le ban-ge xiaoshi
 1SG already to Mary make-PERF half-CL hour
 de dianhua]]]
 SUB phone.call
 ‘I have already talked to Mary on the phone for half an hour.’

(34) 我還沒給瑪麗寄E-mail。
 Wo hai mei [_{VP} [_{PP} gei Mali] [_{VP} ji E-mail]]
 1SG still NEG to Mary send E-mail
 ‘I still haven’t sent an E-mail to Mary.’

(35) 他不在上海學法文。
 Ta bu [_{VP} [_{PP} zai shanghai] [_{VP} xue fawen]]
 3SG NEG in Shanghai study French
 ‘He does not study French in Shanghai.’

However, as soon as the PP occurs elsewhere than in a VP-adjoined position, e.g. in the sentence-initial topic position (cf. (36)–(38)) or as a modifier embedded in a NP (cf. (39)), the incompatibility of PPs with adverbs and negation becomes visible:

(36) (*已經) 給瑪麗, 我已經打了半個小時的電話。
 (*yijing) [_{PP} Gei Mali], wo [_{VP} [_{adverb} yijing [_{VP} da -le
 already to Mary 1SG already make-PERF
 ban-ge xiaoshi de dianhua]]
 half-CL hour SUB phone.call
 ‘To Mary, I have already talked on the phone for half an hour.’

(37) (*沒) 給瑪麗, 我還沒寄E-mail, 給小李, 我已經寄了。
 (*mei) [_{PP} Gei Mali], wo hai mei ji E-mail, [_{PP} gei Xiaoli],
 NEG to Mary 1SG still NEG send E-mail to Xiaoli
 wo yijing ji -le
 1SG already send-PERF
 ‘To Mary I still haven’t sent an E-mail, to Xiaoli, I have already sent one.’

(38) (*不) 在上海他不學法文, 他學漢語。
 (*bu) [_{PP} Zai shanghai] [_{TP} ta bu xue fawen],
 NEG in Shanghai 3SG NEG study French
 [_{TP} ta xue hanyu]
 3SG study Chinese
 ‘In Shanghai, he does not study French, [but] he studies Chinese.’

(39) 他買了幾本(*不)關於Chomsky的書。
 Ta mai-le ji -ben [_{NP} [_{PP} (*bu) guanyu Chomsky] de shu]
 3SG buy-PERF several-CL NEG about Chomsky SUB book
 ‘He bought several books (not) about Chomsky.’

Similarly, the possibility to mark the verb in an adjunct clause with aspectual suffixes has been misinterpreted as an instance of the homoph-

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onous preposition displaying verbal properties, as illustrated with the pair of verb *gen* ‘follow’ and preposition *gen* ‘with, to’:

(40) 你跟著他!

Ni gen -zhe ta
2SG follow-DUR 3SG
‘Follow him!’

(41) 我跟他說話。

Wo [_{VP} [_{PP} gen ta] [_{VP} shuo hua]
1SG with 3SG talk word
‘I speak to him.’

Only the verb *gen* ‘follow’ is compatible with aspect (cf. (40)), but not the preposition *gen* ‘with, to’ (cf. 41)). Accordingly, when *gen* is suffixed with the durative aspect suffix *-zhe* (cf. (42)), it must be analysed as the verb ‘to follow’, i.e. in this case the adjoined phrase is not a PP, but a VP.¹¹

(42) 我跟著他說話。

wo [_{VP} [_{adjunct clause} PRO gen -zhe ta] shuo hua]
1SG follow -DUR 3SG talk word
‘While I’m following him, I’m talking (to myself, to him, or to a third person).’

Note that the contrast between the VP status of *gen-zhe ta* in (42) and the PP status of *gen ta* in (41) is reflected in the interpretation: while the PP *gen ta* in (41) indicates the person spoken to, the interlocutor in (42) must be inferred from the context.

The failure to distinguish between an adjunct PP and an adjunct VP is at the origin of the wrong idea that prepositions ‘retain’ verbal properties and that they should be labelled ‘coverbs’. In fact, prepositions in Chinese turn out to be not ‘verb-like’ at all.

12.3.2 *Prepositions cannot function as predicates*

Roberts and Roussou (2003: 128) claim verbal character for prepositions resulting from V-to-P reanalysis. This implies that like the VP, the PP is selected by a *v*-like head. However, the data below demonstrate that there is no ‘extended’ P projection to assign the external theta-role in Chinese. PPs cannot function as predicates, neither as primary (43) nor as secondary (44)

¹¹ To be precise, the adjoined projection in (42) is a clause with a null subject. For expository purposes, we will continue to talk about VP vs PP adjuncts.

(cf. Huang 1982 for evidence that structures such as (44) involve a secondary predicate).

(43) *他從北京。

*Ta [PP cong Beijing]
3SG from Beijing

(Intended meaning: 'He is from Beijing.')

(44) 他有幾個學生會說中文 / *從北京。

Ta you ji -ge xuesheng [vP hui shuo zhongwen]
3SG have several-CL student can speak Chinese

/* [PP cong Beijing]
/ from Beijing

'He has several students who can speak Chinese / several students from Beijing.'

(45) 他從北京回來了。

Ta [vP[PP cong Beijing] [vP huilai-le]]
3SG from Beijing return-PERF

'He has returned from Beijing.'

(46) a. *這本書關於 Chomsky 。

*Zhei-ben shu [PP guanyu Chomsky]
this -CL book about Chomsky

(intended meaning: 'This book is about Chomsky.')

b. 他有一本書 *關於Chomsky / 談到 Chomsky 。

Ta you yi-ben shu *[PP guanyu Chomsky] /
3SG have 1-CL book about Chomsky /
[vP tandao Chomsky]

talk.about Chomsky

'He has a book about Chomsky/talking about Chomsky.'

These data tie in with the observation above that unlike VPs, PPs cannot be negated or be modified by adverbs (cf. (36)–(39)).¹² This demonstrates the lack of functional structure above P; there is no 'little *p*' selecting the PP in Chinese, notwithstanding its verbal origin. 'Pruning' of the external argument must therefore have taken place along with the V-to-P reanalysis, in accordance with Whitman (2000).

¹² Prepositions in Chinese lack a specifier position to host modifiers (cf. Huang 1982: 27, 61). Consequently, Chinese has no equivalent of English PPs as in (i):

(i) [PP very [P' near [NP the house]]] (Bresnan 1976)

208 *V-to-P reanalysis in Chinese*12.3.3 *Ban on preposition stranding*

Another important difference between prepositions and verbs in Chinese (and elsewhere) is the fact that prepositions always require their complement (cf. Huang 1982: 499, 510–13), while verbs allow for an empty object position:

(47) 護士每天跟著的醫生姓張。

[_{NP} [_{TP} Hushi mei -tian gen -zhe Ø] de yisheng] xing Zhang
 nurse every-day follow-DUR SUB doctor call Zhang
 ‘The doctor whom the nurse follows every day is called Zhang.’

(48) a. *我跟不熟的那個人。

*[_{NP} [_{TP} wo [_{PP} gen Ø] bu shou de] nei-ge ren]
 1SG with NEG familiar SUB that CL person
 ‘the person I’m not familiar with’

b. *張三，我跟不熟。

*Zhangsan_i [_{TP} wo [_{PP} gen Ø] bu shou]
 Zhangsan 1SG with NEG familiar
 (‘Zhangsan, I’m not familiar with.’) (Huang 1982: 499 (109a-b))

(49) 我剛才去了一趟，他沒在（家）。(Lü *et al.* 2000: 230)

Wo gangcai qu-le yi-tang, ta mei [_{VP} zai (jia)]
 1SG just go-PERF 1-time 3SG NEG be home
 ‘I just went there, he wasn’t at home.’

(50) 他每天在*（家）睡了午覺。

Ta mei -tian [_{VP} [_{PP} zai *(jia)] [_{VP} shui wujiao]]
 3SG every-day at home sleep nap
 ‘He takes a nap at home every day.’

As illustrated above (cf. 47), the object leaves a gap when relativized; this, however, is not acceptable for the complement of a preposition (cf. (48a–b)). Similarly, the object of a verb can remain implicit when known from the context (cf. (49)); again, this is impossible for the complement of a preposition (cf. (50)).

12.3.4 *Selection restrictions: preposition vs verb*

The existence of homophonous preposition/verb pairs has been one of the major reasons for the reluctance to admit the distinction between verbs and prepositions. However, in addition to the numerous syntactic differences demonstrated above, their diverging selection restrictions equally argue against any conflation.

First, prepositions only take one complement, irrespective of the number of complements of the ‘corresponding’ verb. For instance, the preposition *gei* ‘to, for’ only has one complement, in contrast to the verb *gei* ‘give’ which has two:

- (51) 我從來沒給過他錢。
 Wo conglai mei gei -guo ta qian
 1SG ever NEG give-EXP 3sg money
 ‘I have never given him any money.’
- (52) 他通常給瑪麗做炒麵。
 Ta tongchang [_{VP} [_{PP} gei Mali] [_{VP} zuo chaomian]]
 3SG often for Mary make fried.noodles
 ‘He often makes fried noodles for Mary.’

Second, while the goal of the double-object verb *gei* must be a [+human] NP, no such constraint exists for the preposition *gei*:¹³

- (53) *給黑板報一個稿子。
 * [_{VP} gei heibanbao [yi-ge gaozi]]
 give blackboard.newspaper 1-CL article
 (intended meaning: ‘to give the blackboard newspaper an article’)
- (54) 給黑板報寫一個稿子。
 [_{VP} [_{PP} gei heibanbao] [_{VP} xie [yi-ge gaozi]]]
 for blackboard:newspaper write 1-CL article
 ‘to write an article for the blackboard newspaper’

Furthermore, the wide range of roles expressed by the *gei*-PP constitutes another difference with respect to the verb *gei*. The *gei*-PP can indicate the goal of an action (cf. (55)), the benefactive (cf. (56)), and the so-called ‘ethical dative’ (cf. (57)):

- (55) 給小朋友講個故事。 (goal)
 gei xiaopengyou jiang ge gushi
 to child tell CL story
 ‘Tell the children a story.’
- (56) 我給你當翻譯。 (benefactive)
 Wo [_{VP} [_{PP} gei ni] [_{VP} dang fanyi]]
 1SG for 2SG serve interpreter
 ‘I’ll serve as an interpreter for you.’

¹³ NPs referring to institutions such as e.g. *xuexiao* ‘school’, *guojia* ‘state’ etc. are considered as quasi-human goals and hence acceptable as indirect object of the verb *gei* ‘give’.

- (57) 你給我小心點兒! (ethical dative)
 Ni [v_P [p_P gei wo] [v_P xiaoxin dianr]]
 2SG for 1SG be.careful a.little
 '(Do me the favour and) be a bit more careful!' (Lü *et al.* 2000: 227)

To summarize, prepositions in Chinese cannot function as predicates (hence incompatibility with aspect, negation, and adverbs), they only allow for one complement (irrespective of the number of arguments of the 'corresponding' verb), and do not admit preposition stranding. These properties hold for all prepositions, irrespective of whether there exists a homophonous verb (e.g. 在 *zai* 'in, at'; 給 *gei* 'to, for'; 跟 *gen* 'with, to', 對 *dui* 'towards') or not (e.g. 從 *cong* 'from', 關於 *guanyu* 'concerning' etc.). Accordingly, there is no 'extended' P projection and V-to-P reanalysis must therefore involve pruning of the external argument position, notwithstanding the lexical status of prepositions.

Last, but not least, the longevity of prepositions resulting from V-to-P reanalysis challenges Roberts and Roussou's (2003) assumption that this kind of reanalysis represents only a 'preliminary' step to grammaticalization 'proper'. The preposition 從 *cong* 'from' e.g. is attested since the first century BC, the preposition 對 *dui* 'towards' since the first century AD, and the preposition 給 *gei* 'to, for' since the eighteenth century (cf. Peyraube 1988: 265).¹⁴

12.4 Conclusion

We have provided extensive evidence to show that in all periods of the Chinese language, prepositions must be distinguished from verbs. In contrast to Roberts and Roussou's (2003: 128) claim, prepositions resulting from V-to-P reanalysis do not retain the relational status of VPs, given that the external argument position has been pruned (cf. Whitman 2000).

The co-existence of homophonous verbs and prepositions in modern Mandarin as well as the longevity of prepositions resulting from V-to-P reanalysis considerably weaken the widespread idea that the loss of the 'original' lexical item is a crucial factor for grammaticalization (cf. Longobardi 2001a: 278) and that lexical reanalysis represents a kind of 'preliminary' change in this process (cf. Roberts and Roussou 2003: 129).

These conjectures are based on the fallacious idea that in an A-to-B reanalysis A 'becomes' B. As emphasized by Hale (1997) and corroborated

¹⁴ The different 'life spans' of these prepositions highlight the difficulty of determine up to what 'age' a given reanalysis still counts as 'preliminary'.

by the Chinese data, A continues to exist while B is added as a new entry in the lexicon. The eventual loss of A is a matter of contingency and independent of the emergence of B. The minimalist conception of change as a change in discrete features of individual lexical items allows us to avoid the misconception that the loss of the 'original' item is necessary for the reanalysis to occur. Upon reflection, we can see that this would amount to the claim that, for example, in any instance of feature change, including even a zero derivation, such as *bicycle* > (*to*) *bicycle* (i.e. N-to-V), the basic term would be predicted to disappear.

V-to-P reanalysis in Chinese offers us a window on the mechanisms of lexical change and the restrictions governing it. It also illustrates that in order to make meaningful statements about language change, it is indispensable to have a precise structural analysis of both the input and the output structure.

References

- Bresnan, J. (1976). 'The form and function of transformations', *Linguistic Inquiry* 7: 3 - 40.
- Chomsky, N. (1995). *The minimalist program*. Cambridge, MA: MIT Press.
- Chen, Mengjia 陳夢家 (1956). *Yinxu buci zongshu* 殷墟卜辭綜述. Beijing 北京: Kexue chubanshe 科學出版社.
- Chao, Yuen Ren. 1968. *A grammar of spoken Chinese*. Berkeley et alibi: University of California Press.
- Collins, C. (1997). 'Argument sharing in serial verb constructions', *Linguistic Inquiry* 28, 3: 461 - 497.
- Djamouri, R. (1988). *Etude des formes syntaxiques dans les écrits oraculaires gravés sur os et écaille de tortue (Chine 14^e-11^e av. J.-C.)*. Doctoral dissertation, Ecole des Hautes Etudes en Sciences Sociales, Paris.
- Djamouri, R. (2001). 'Markers of predication in Shang bone inscriptions', in H. Chappell (ed.), *Sinitic Grammar. Synchronic and diachronic perspectives*. Oxford et alibi: Oxford University Press, 143 - 171.
- Djamouri, R. (2005). 'Chinois ancien et constructions verbales en série'. Available at: <http://www.typologie.cnrs.fr/spip.php?article107>.
- Djamouri, R. and Paul, W. (1997). 'Les syntagmes prépositionnels en *yu* 于 et *zai* 在 en chinois archaïque', *Cahiers de Linguistique Asie Orientale* 26, 2: 221 - 248.
- Emonds, J. (1987). 'The invisible category principle', *Linguistic Inquiry* 18, 4: 613 - 632.
- Guan, Xiechu 管燮初 (1953). *Yinxu jiagu keci de yufa yanjiu* 殷墟甲骨刻辭語法研究. Shanghai 上海: Guojia kexue 國家科學.
- Guo, Xiliang 郭錫良 (1997). 'Jieci yu de qiyuan he fazhan', 介詞「于」的起源和發展, *Zhongguo yuwen* 中國語文, 2, 131-138.

- Guo, Xiliang 郭錫良 (2005). 'Hanyu jieci yu qiyuan yu hanzang yu shuo shangque, 漢語介詞“于”起源與漢藏語說商榷, *Zhongguo yuwen* 中國語文, 4, 341 - 345.
- Hale, K. and Keyser, S. J. (1993). 'On argument structure and the lexical expression of syntactic relations', in K. Hale and S. J. Keyser (eds.), *The view from building 20*. Cambridge, MA: MIT Press, 53 - 109.
- Hale, M. (1997). *Theory and Method in Historical Linguistics*. Ms., Concordia University.
- Huang, C.-T. James (1982). *Logical Relations in Chinese and the theory of grammar*. Doctoral dissertation, MIT, Cambridge, MA.
- Huang, Weijia (1987). 'Jia/jinwen zhong zai, yu, zi, cong si zi jieci yongfa de fazhen bianhua jiqi xianghu guanxi, 甲金文中「在，于，自，从」四字介詞用法的發展變化及其相互關係. *Shanxi shida xuebao: zhe she ban (Xi'an)* 陝西師大學報：哲社版（西安）1: 81-90.
- Kryukov, M.V. (1980). *The Language of Yin Inscriptions*. Moscow: Nauka Publishing House.
- Li, C.N. and Thompson, S.A. (1974). 'An explanation of word order change SVO > SOV', *Foundations of Language* 12: 201 - 214.
- Li, C.N. and Thompson, S.A. (1981). *Mandarin Chinese. A functional reference grammar*. Berkeley et alibi: University of California Press.
- Liang, James Chao-Ping (1971). *Prepositions, co-verbs, or verbs? A commentary on Chinese grammar - past and present*. Doctoral dissertation, University of Pennsylvania.
- Lightfoot, D. W. (2002). 'Myths and the prehistory of grammars', *Journal of Linguistics* 38: 113 - 136.
- Longobardi, G. (2001). 'Formal syntax, diachronic minimalism, and etymology: The history of French *chez*', *Linguistic Inquiry* 32, 2: 275-302.
- Lü, Shuxiang et al. (eds.) (2000). *Xiandai hanyu babaici*. Beijing: Shangwu chubanshe.

- McCawley, J.D. (1988). 'Adverbial NPs: Bare or clad in see-through garb?', *Language* 64, 3: 583 - 590.
- Mei, Tsu-Lin 梅祖麟 (2004). 'Jieci yu zai jiaguwen he hanzangyu li de qi yuan, 介詞“于”在甲骨文和漢藏語裏的起源. *Zhongguo yuwen* 中國語文, 4, 323-332.
- Newmeyer, F.J. (1998). *Language Form and Language Function*. Cambridge, MA: MIT Press.
- Ng, Siew Ai (1987). 'Bare NP modifiers in Chinese: A government and binding approach', *Working Papers in Linguistics* (University of Hawaii) 19, 1: 79-110.
- Paul, W. (2008). 'The serial verb construction in Chinese: A tenacious myth and a Gordian knot', *The Linguistic Review* 25, ¾: 367 - 411.
- Peyraube, A. (1988). *Syntaxe diachronique du chinois. Evolution des constructions datives du 14e siècle av. J.-C. au 18e siècle*. Paris: Collège de France, Institut des Hautes études chinoises.
- Pulleyblank, E.G. (1995). *Outline of Classical Chinese grammar*. Vancouver: University of British Columbia Press.
- Roberts, I. and Roussou, A. (1999). 'A formal approach to “grammaticalization”', *Linguistics* 37: 1011-1041.
- Roberts, I. and Roussou, A. (2003). *Syntactic Change – A Minimalist Approach to Grammaticalization*. Cambridge: Cambridge University Press.
- Shen, Pei (1992). *Yinxu jiagu buci yuxu yanjiu*. Taipei: Wenjin.
- Simon, H. (1958). 'Some remarks on the structure of the verb complex in Standard Chinese', *Bulletin of the School of Oriental and African Studies* 21: 553 - 577.
- Whitman, J. (2000). 'Relabelling', in S. Pintzuk et al. (eds.), *Diachronic Syntax: Models and Mechanisms*. Oxford et alibi: Oxford University Press, 220-238.

Whitman, J. and Paul, W. (2005). 'Reanalysis and conservancy of structure in Chinese', in M. Batllori et al. (eds.). *Grammaticalization and parametric change*. Oxford et alibi: Oxford University Press, 82 - 94.

Zhang, Yujin 張玉金 (1994). *Jiaguwen xuci cidian* 甲骨文虛詞詞典. *Beijing* 北京: Zhonghua shuju 中華書局.