

空間移動表現のタイポロジーと限界性

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問題提起その1

Talmy (2000:214) は S-言語 (satellite-framed language) と V-言語(Verb-framed language)を区別するときに、前者の satellite が空間移動の経路のほかに、状態変化や実現を表示することを指摘している: the correlation between the encoding of the path in a motion event ('the ball rolled *in*') and the encoding of fulfillment in an event of realization (the police hunted the fugitive *down*') or the encoding of the changed property in an event of state change ('the candle blew *out*').

これは中国語に関しても簡単にみつける関連性: 空間移動の経路を表すいわゆる「方向補語」は、このような状態変化を表す「派生的用法」を豊富にもっていることがよく知られている

(たとえば: Path --- 球滚进去了 / fulfillment -- 把犯人抓起来了 / changed property 他昏过去了) 状態変化といえば、アスペクトのタイプとしては、「限界性」(boundedness) とリンクする。しかし Talmy が自分の提示するタイポロジーのカギが限界性にあるとは明記していない(読んだ限りでは)。そタイポロジーが有効であるとすれば、S-言語と V-言語の差を、S-言語の satellite という形式の存在にあるのか、あるいはその形式が動詞句限界性というアスペクト特徴を付与することがカギなのか? 中国語のデータは後者を支持する。

問題提起その2

典型的な VO 言語であるタイ語とちがって、そして典型的な OV 言語である日本語とちがって、中国語では場所名詞を動詞の前と動詞の後ろという二つの位置に置くことができる。その位置は複数のパラメータによって決まるが、その一つは情報構造で、フォーカスは後ろという傾向がよく知られている。動詞後に置かれる用言的要素(方向補語)や「x+場所詞」という体言的要素が動詞句に限界性を付与する傾向を認めるなら、これは中国語のこのかなり変わっている類型的特徴の束が整えた環境の中で発展した秩序であるかもしれない。しかし動詞後の位置と限界性を結びつけるのにいくつか問題がある。標準中国語のほかに、その結びつきがより顕著である地域語のデータを取り入れて検証する。

まず中国語が空間移動を表すときに用いる素材を紹介した上 (I、英文)、II では方向詞がなぜ本来動作の方向と縁のない「限界性」を帯びるようになるかを考えて、方向補語のいくつかの特徴を取り上げる。III では、中国語をほかの S-言語と対照させて、S-言語と V-言語の決定的な差はなにかという問題にもどる。

日本語の資料(別紙)は主に中国語の方言データを補充するものである。

I. The linguistic material available in Chinese to encode the semantic components of a motion event

1.1. Figure NPs [F] appear as the subject of the clause in autonomous (self-agentive and non-agentive) motion events, that is before the verb (ex. 11), or sometimes after in presentative sentences. In caused motion events, the Figure may have several positions: after the verb if indefinite or generic; before the verb, and most of the time introduced by a marker [glossed below as ACC] 把 *bǎ* if identifiable (see ex. 8), or as the subject of the sentence in passive sentences (see ex. 12). Note that in the cases when an inanimate Figure appears before the verb and the VP lack any overt passive or causative marking, we treat the event as a non-agentive (i.e. autonomous) motion event.

1.2. Ground NPs [G]

1.2.1. Localizers

A Ground NP may behave just like another common noun, for instance when it acts as the object of a Path Verb, like 桥 *qiáo* ‘bridge’ in 过桥 *guò qiáo* ‘cross the bridge’. However, in many syntactic environments, for instance when it appears after a preposition in a PP, it is required to be a *place word*¹. Some nouns are semantically intrinsic *place words*, like place names designating towns or countries, ex. Beijing in 飞到北京 *fēidào Běijīng* ‘fly to Beijing’. Deictic demonstrative pronouns like 这儿 *zhèr* ‘here’, or disyllabic *position words* like 里边儿 *lǐbianr* ‘inside’, used when the Ground NP is understood from the context, are also entitled to become *place words*. However, in order to become a *place word*, most nouns like ‘mountain’, ‘table’, ‘wall’ etc., need to be suffixed by a *localizer*, like in the following verb phrase involving path verb ‘come down’, where the localizer *-shang* cannot be omitted after the noun ‘bridge’:

- (1) 你 快 从 桥 上 下 来
nǐ kuài cóng qiáo(shang) xiàlai*
 2s quickly from bridge-**upside** descend-come
 ‘come down immediately from the bridge [toward the speaker].’

Localizers are unstressed and suffixed on the Ground NP. Apart from their role of marking the NP as a place-word, they indicate the spatial position of the Figure relative to the Ground NP, like 上 *-shang* ‘on’, or 里 *-li* ‘in’, the two most widely used localizers. This compensates for the absence of such information in the preposition (the only way to render English ‘on the table’ is ‘at table’s upper-part’, similarly ‘in the box’ is conveyed by ‘at box-inside’). Localizers are grammaticalized from nominal elements, *position words* ‘upper part of ~’, ‘inside of ~’, which explains why they are postnominal, as Chinese is a Modifier-Head language.

¹ We adopted the terms ‘place words’, ‘position words’ and ‘localizers’ from the fairly widely-known terminology exposed in Chao 1968 (pp. 519-532 and 397-402). Localizers are called ‘locative particles’ in Li & Thompson 1981:391.

1.2.2. Prepositions

Ground NPs often appear in the sentence introduced by prepositions, with which they form PPs. If we acknowledge the status of *-dao* as a preposition, Chinese PPs appear in two different syntactic positions:

a) Preverbal [Preposition+Ground NP+ Verb Phrase]. The following example illustrates a combination of a PP and a VD. As is shown in example (2'), the SOURCE PP 'from + Ground NP' cannot appear after the verb:

(2) 从 教室里 跑出来 'run out of the classroom'
cóng jiàoshìlǐ pǎochulai
 from classroom-inside run-exit-come

(2') * 跑 从 教室里 来 / * 跑出来 从 教室里
 * *pǎo cóng jiàoshìlǐ lái* / * *pǎochulai cóng jiàoshìlǐ*
 run from classroom-inside come / run-exit-come from classroom-inside

b) Postverbal [Verb + Preposition+Ground NP]. Very few prepositions are accepted after the verb, the most representative being *-dao* 'to' (originally 'to arrive'), which expresses REACHED GOAL. Here too, the PP cannot be moved to before the verb without changing the meaning of the sentence (actually in 3' we deal with the full verb *dào* 'to arrive', and also 'to go/come to ~' in combination with a deictic directional):

(3) 推 到 屋里 去
tuī dào wūlǐ qù
 push-arrive room-inside go
 'push [it] into the room (away from the speaker)'.

(3') 到 屋里 推 去 = 到 屋里 去 推
dào wūlǐ tuī qù = *dào wūlǐ qù tuī*
 arrive room-inside push go = arrive room-inside go push
 *'push [it] into the room (away from the speaker)'.
 'go inside the room to push [it]'

Preverbal PPs express SOURCE, GOAL, ROUTE etc., and have no influence whatsoever on the aspectual feature (non/boundedness) of the clause, leaving the postverbal slot open for various perfective or imperfective aspect markers, as well as for duration expressions corresponding to English *for*-phrases. Postverbal locative Prepositions are limited in Mandarin Chinese to *-dao* 'to', the PP [*-dao*+G] encoding the ENDPOINT of the motion².

² This has been stated 30 years ago by Tai (1975) in terms of iconicity, as a principle governing Chinese word order: the function of a postverbal place adverbial is, he said, "to denote the location of a participant of an action as the result of the action". Tai's analysis included a preposition which may appear both preverbally and postverbally: 在 *-zai* 'at'. In some cases it is similar to *-dao* 'to' in expressing the endpoint of the motion and thus makes the sentence perfective, while in other cases the perfective meaning of [V+*-zai*+Ground NP] turns into an imperfective meaning to express a resultant state after a change of state. However, this is but a secondary aspect shift limited to posture verbs and other specific verb classes, and also geographically restricted to some areas. To simplify the discussion, we will not discuss here postverbal *-zai*, and refer the

From an aspectual point of view, the clauses containing a postverbal PP are bounded³. There is no agreement on *-dao*'s status: some frameworks⁴ include *-dao* 到 'to' in their list of directionals, others consider it as a preposition. As we will see below, it is in Standard Mandarin neither a prototypical preposition, since typical PPs are preverbal (see ex. 3 and 3'), nor a prototypical Directional, since it cannot be used without a following Ground NP. This last feature also excludes it from being a satellite if we follow Talmy's definition (2000:103-109). We will come back to this issue in section 4 below.

Note that in Beijing colloquial speech *-dao* may be omitted without leaving any traces. This omission gives birth to [V_{co-e} + zero + Ground NP + D_d] constructions. For instance sentence (3) can be rephrased as 推屋里去 *tuī wūli qu* [push room-inside go] without any change of meaning: 'push [it] into the room (away from the speaker)'. Such a feature illustrates in a sense the power of the construction meaning: it entails that the Ground Phrase following the verb is the ENDPOINT of the motion, so the overt marking of this endpoint by 'to' becomes superfluous⁵.

1.2.3. Postverbal and preverbal PPs and boundedness

Let us illustrate the aspectual difference between these two word-orders. In (4) the VP 'walk along the river' lacks a spatial boundary, and is temporally nonbounded, as can be seen from its cooccurrence with the duration phrase 'for + one hour'. The whole clause is marked as bounded temporally by the perfective aspect marker *-le* and the duration phrase 'for one hour'. A PP such as 'along the river' is not allowed to appear postverbally. (5) is a hortative sentence, and the PP 'northward' (litt. 'toward north') is also felt to be strange if put after the verb:

- (4) 她 沿着 河边儿 走了 一个 小时 左右。
Tā yánzhe hébiānr zǒule yíge xiǎoshí zuǒyòu.
 3S **along riverside walk**-PFV one CL hour about (descriptive) [PFV=Perfective]
 'She walked **for** about one hour along the river'
- (4') *走 沿着 河边儿
 **zǒu yánzhe hébiānr*
 walk along river
- (5) 你 一直 往 北 走!
Nǐ yìzhí wǎng běi zǒu
 2S straight **toward-north walk** (hortative).
 'Keep walking northward'

reader to Lamarre 2003a, Lamarre 2003b, Lamarre2003d and Chirkova & Lamarre (forthcoming) for detailed discussions on the issue. Tai (1975) did not discuss the aspectual side of this issue.

³ Although there are exceptions to this rule in the written language (which often borrows constructions from the Classical language, where locative phrases expressing source or unreached goal could appear postverbally), this word-order opposition is quite clear-cut in the spoken language. For instance, one will find examples with postverbal 'toward' *wǎng* in formal written-style sentences such as 'walk toward socialism', but such sentences are felt as queer for everyday life and in colloquial sentences such as 'run toward the station / walk northward', which will make use of a preverbal PP '*wǎng* + NP + V'.

⁴ Lü et al. 1980, Liu Yuehua 1998.

⁵ In most of the dialects I surveyed personally, though, the disappearance of *-dao* 'to' as a segment was compensated by suprasegmental or segmental modifications in the preceding verb.

- (5') * 走 往 北 !
 *zǒu wǎng běi 'walk northward'

Both (4) and (5) lack any spatial endpoint (or end-boundary), the PPs expressing an *unbounded path* -- or to use Goldberg & Jackendoff's (2004) term, they are *non-end-bounded spatial PPs*. None make use of a Path Satellite (or Directional). Conversely, the next sentence (6) expresses a reached goal, introduced by *-dao* 'to'. As shown in (6'), a verb followed by '*dao* + Ground NP' cannot be modified by the progressive marker *zài*, differing thus from the equivalent English sentence with 'to'.

- (6) 跑到 河边儿 去 !
 pǎodao hébiānr qu !
 walk-arrive riverbank go
 'run to the riverbank !' (away from the speaker)

- (6') : *她 在 跑到 河边儿 去
 *tā zài pǎodao hébiānr qu
 3S PROG walk-arrive riverbank go
 [intended meaning] 'she is/was running to the riverbank'

This shows that in Chinese, what Dahl (1981:84) calls the difference between 'actual and potential terminal points' is encoded through word order⁶. Postverbal goals are 'actual terminal points', and appear in perfective sentences. Or to use another reference frame (Goldberg & Jackendoff: 2004), we can say that in Chinese the rule governing the syntactic position of PPs entails that a postverbal Resultative Phrase necessarily behaves like an "*end-bounded Spatial PP*", and forms a 'telic resultative' (cf. English 'Bill floated into the cave'). Events involving *non-end-bounded spatial PPs* (like English 'Bill pushed Harry along the trail') will be encoded with preverbal PPs (see below section 5 for more details).

1.2.4. Ground NPs introduced by Path Satellites

The situation is a little more complex when the Ground NP appears after the verb introduced by a Path Satellite. We presented [V-*dao*+G] patterns in section 1.2.2 above, although *-dao* 'to' shares many features with path Satellites (it appears in the same paradigm, i.e. exclusively after the verb, and often cooccurs with deictic Directionals). The core members of the category of Path Verb/Satellites (those inside the double line in table 1 below) may also introduce postverbal Ground NPs, like in sentence 7 below:

- (7) 方方 一拳 打倒 警察, 转身 跑 进 电梯, 其他 警察 冲 过来, ...
 Fāngfāng yì quán dǎdǎo jǐngchá zhuǎnshēn pǎojìn diàntī qítā jǐngchá chōngguolai ...
 Fangfang one-fist beat-fall:down policeman,turn:body **run-enter elevator**, other policeman rush-cross-come
 'Fangfang knocked down the policeman, turned round and *ran into the elevator*, other policemen rushed over to them...' (novel, Wang Shuo *Yi bàn shì* ...8)

In this case the NP functions as an argument of the Path verb *-jin* (it does not bear any localizer). Such

⁶ Dahl raised this issue about predicates like 'move toward + Ground NP', for which he noticed that they are 'telic' in the sense that there is a 'well-defined potential terminal point', but fail the tests of telicity, for instance being expanded with a *for*-phrase rather than a *-in*-phrase.

sentences support the view that Directionals like *-jin* are still verbs, for they can take Ground NPs as arguments. We will provide more examples in section 1.6. below, and discuss this issue later in section 2.4. Aspectually, the situation is more complex than for [V_{co-e}+*dao*+G]. When the Ground NP is the ROUTE of the Path expressed by the satellite: the couple [DG] may form a *non-end-bounded phrase*, like ‘up the stairs’ in English, which should allow for an unbounded interpretation. On the other hand, the syntactic position of the directional ‘after the verb’, i.e. the position of resultative elements, tends to give it a bounding function. We will see below that many northern or central dialects solved this distortion between syntactic position and semantic features by forbidding such patterns altogether. Once Path directionals are forbidden to take Ground NPs as arguments, only utterly bounding phrases (expressing the ENDPOINT location of the motion) are allowed after the verb, putting the aspectual features of the construction in congruence with the semantics of the Ground Phrase.

1.3. Co-event verbs [V_{co-e}] Co-event verbs range from typical *manner verbs* in self-agentive motion sentences (‘walk, run, hurry, rush, swim, crawl...’) to verbs expressing a direct cause of motion (‘push, insert, take with the hand, kick, throw, carry, send’) or indirect action which enables it (‘call, cheat, meet, get, invite, borrow, rescue’...). Thus, like in English, the co-event verb may be semantically totally unrelated with any concept of MOTION, especially in the case of a caused motion event. The following example refers to a caused motion event, and describes a situation where a child hides in a cupboard and does not want to come out, an adult having to cheat her out:

- (8) 把 孩子 骗出来 (Hou et al. 2001: 355)
bǎ háizi piànchulai
 ACC child cheat-exit-come
 ‘to cheat the child out [of some place where she is hidden etc.][toward speaker]’

1.4. Path verbs may take Ground NPs as objects (10) but have no causative meaning (10’):

- (9) 进来! *Jinlai* ‘Come in!’ [Enter-come] (to s.o. knocking at the door)
 (10) 进站 *jìn zhàn* ‘get into the station’ [enter station]
 (10’) *进钱包 **jìn qiánbāo* [enter purse], intended meaning ‘put your purse in’,
 cf. Jp. ‘*saihu o irete*’.

The semantic relationship of the Path Verb and its object Ground NP varies: 过 *guò* ‘cross’ takes ROUTE NPs (过桥 *guò qiáo* ‘cross the bridge’), 出 *chū* ‘exit’ may take SOURCE (ex. 出国 *chūguó* ‘go abroad’ [exit + one’s country]), ROUTE (ex. 出门 *chūmén* ‘go out’ [exit + door]) or GOAL (ex. 出洋 *chūyáng* ‘go abroad’ [exit + foreign countries]) NPs; 上 *shàng* ‘ascend’ takes ROUTE (ex. 上山 *shàng shān* ‘go/come up a hill, go uphill’ [ascend + hill]), 上坡 *shàng pō* ‘go up a slope’ or GOAL (ex. 上台 *shàng tái* ‘go/come up onto the stage’ [ascend+stage]) NPs; 下 *xià* takes ‘descend’ SOURCE (ex. 下船 *xià chuán* ‘disembark’ [descend+boat]), ROUTE (ex. 下山 *xià shān* ‘descend the mountain’ [descend+mountain]) or GOAL (ex.

下海 *xiàhǎi* ‘go to sea’ [descend+sea]) NPs, etc... Path Verbs take Figure NPs with a causative meaning only in a few lexicalized items where they have lost their spatial meaning, for instance 出书 *chūshū* [exit+book] can only mean ‘publish a book’ and not ‘take out a book from some place] (compare with Japanese *hon o dasu*, or French *sortir un livre*, which may take both meanings). 回 *huí* ‘return’, 到 *dào* ‘arrive’ and deictic verbs 来 *lái* ‘come’ and 去 *qù* ‘go’ take GOAL NPs, and require a localizer on the locative NP if it is not *per se* a place-word.

1.5. Path Directionals [D] are Path Satellites grammaticalized from Path verbs (see table 1).

They form with the co-event verb they follow a VD construction, ex. 推出去 *tūchūqu* (push-exit-go) ‘push [it] out (away from the speaker)’. The following table 1 gives Chinese path verbs and corresponding path directionals.

Path Verbs and Path Satellites (Table 1)

	来	去	进	出	上	下	回	过	起	到
Verb	<i>lái</i> ‘come’	<i>qù</i> ‘go’	<i>jìn</i> ‘enter’	<i>chū</i> ‘exit’	<i>shàng</i> ‘ascend’	<i>xià</i> ‘descend’	<i>huí</i> ‘return’	<i>guò</i> ‘cross’	<i>qǐ</i> ‘rise’	<i>dào</i> ‘arrive’
Satellite	<i>-lái</i> ‘hither’	<i>-qù</i> ‘thither’	<i>-jìn</i> ‘in’	<i>-chū</i> ‘out’	<i>-shàng</i> ‘up’	<i>-xià</i> ‘down, off’	<i>-huí</i> ‘back’	<i>-guò</i> ‘across, over’	<i>-qǐ</i> ‘up’	<i>-dào</i> ‘to’

As shown in table 1 above, Path Satellites include 2 deictic elements, 6 core members, and one less prototypical 起-*qi*. The special item 到-*dao* ‘to’, which in Standard Mandarin must be followed by a Ground NP (other Path Satellites appear most of the time without a following Ground NP), is sometimes treated as a preposition. We will specify below the rules which combine deictic and non-deictic directionals to form complex path satellites [non-deictic D + deictic D].

1.6. A few examples of various types of VD constructions

Let us now give a few more examples of the specific structures in which these path directionals appear⁷. In order to reflect the close relationship between Path Verbs and Path Satellites, we gloss both with the verbal meaning of the Path verb: ‘exit, descend’ etc. We adopt in the examples below the following abbreviations and typographical conventions:

D_{nd} = directional (satellite) expressing non-deictic Path ;
D_d = directional (satellite) expressing deictic Path
VD constructions may take various forms: [V+ $D_{nd}+D_d$], [V+ D_d] [V+ D_{nd}]
<u>Co-event verb</u> <u>non-deictic Path</u> <u>deictic Path</u>

⁷ The examples given here still do not exhaust all the possibilities. We leave out presentative sentences where the Figure appears after the verb (in a specific information structure, like Italian inverted sentences for instance). We also do not directly discuss sentences in which the deictic directional is separated from the non-deictic directional. The reader can consult Liu 1998 for a data-oriented description of Chinese directionals. There is a huge amount of literature dealing with the position of the Figure NP when it appears after the verb (VFD_{nd}D_d, VD_{nd}FD_d or VD_{nd}D_dF, VD_dF or VFD_d). We refer the reader to Zhang and Fang (1996:91-111) for a more detailed analysis.

We have already given above an example of a Path Satellite introducing a Ground NP (the GOAL of the motion: ‘ran into the elevator’). Note that whereas SOURCE and ROUTE PPs may only be preverbal, the use of Path Satellites to introduce Ground NPs allows Ground NPs expressing the ROUTE or the SOURCE of the motion to appear after the verb, like in examples 11 and 12 below, which illustrate respectively an autonomous motion and a caused motion.

- (11) ...她 慢慢地 走出了 病房。(Rén dào zhōngnián ch. 22)
 tā màn mǎnde zǒuchūle bìngfáng
 3S slowly walk-exit PFV hospital:room
 ‘she slowly walked out of the sickroom,....’

- (12) 当她被缠上绷带推出手术室时, ... (Rén dào zhōngnián ch. 14)
 dāng tā bèi chánshàng bēngdài tuīchū shǒushùshì shí...
 at 3SGF PASS wind bandages push-exit operating-room time
 ‘when she had been bandaged all over and was pushed out [on a wheelchair] of the operating room,....’

In the following example 13, the Ground NP appears in a preverbal PP expressing SOURCE and is followed by a VD predicate, in which the path directional is the same form ‘exit’ than in examples 11 and 12 above, to encode an autonomous motion event. In 14, there is no overt Ground Phrase, the Figure ‘bedding’ is fronted with the help of the pretransitive object marker *bǎ*:

- (13) ...马青 交完 费, 最后 一个 从 车 里 跨 出 来 [novel, Wang Shuo, *Wan zhu*]
 Mǎ Qīng jiāowán fèi, zuìhòu yíge cóng chēli kuàchūlai
 [Ma Qing pay-finish fee, last one CL from car-inside stride-exit-go]
 ‘...Ma Qing after having payed, was the last to *step out of the taxi*,...’

- (14) ..., 我 把 被褥 给 你 找 出 来 [novel, Wang Shuo *Wanzhu*]
 wǒ bǎ bèirù gěi nǐ zhǎochūlai
 1S ACC bedding BEN 2S seek-exit-come
 ‘...I’ll get you some bedding *out* (of the place where it is kept), covert Ground.’

The relative frequency of use of these various patterns depends much on the style (written or colloquial). In the spoken language, sentences like 11 and 12 where the Ground NP is introduced by the non-deictic Directional are much less frequent. In many Northern and central dialects, this pattern is totally impossible

1.7. Strict rules constrain the combination of the co-event verb and the Directional:

- the Path Directional has two components: non-deictic and deictic $D = [D_{nd} + D_d]$
 D_{nd} = directional satellites expressing non-deictic Path ;
 D_d = directional satellites expressing deictic Path

These three elements enter three distinct syntactic positions, in a fixed order:

[Co-event Verb + non-deictic Path Satellite + deictic Path Satellite].

Table 2: Mandarin twofold Path Satellites

D_{nd} \ D_d	\emptyset zero	上 - <i>shang</i> 'up' (goal-oriented)	下 - <i>xia</i> 'down, off'	进 - <i>jin</i> 'in'	出 - <i>chu</i> 'out'	回 - <i>hui</i> 'back'	过 - <i>guo</i> 'over, through, past'	起 - <i>qi</i> * 'up' (source-oriented)	到 - <i>dao</i> * 'to' (reached goal)
\emptyset	\emptyset	上 \emptyset	下 \emptyset	进 \emptyset	出 \emptyset	回 \emptyset	过 \emptyset	起 \emptyset	到 \emptyset
来 - <i>lai</i> hither	\emptyset 来 - <i>lai</i>	上来 - <i>shanglai</i>	下来 - <i>xialai</i>	进来 - <i>jinlai</i>	出来 - <i>chulai</i>	回来 - <i>huilai</i>	过来 - <i>guolai</i>	起来 - <i>qilai</i>	到 G 来 - <i>dao...lai</i>
去 - <i>qu</i> thither	\emptyset 去 - <i>qu</i>	上去 - <i>shangqu</i>	下去 - <i>xiaqu</i>	进去 - <i>jinqu</i>	出去 - <i>chuqu</i>	回去 - <i>huiqu</i>	过去 - <i>guoqu</i>	/	到 G 去 - <i>dao...qu</i>

* -*dao* 'to' is not included in many lists of directionals, due among other things to the compulsory expression of the Ground when it combines with deictic 来 and 去. The Ground NP, when overtly expressed after the verb, is in Mandarin inserted between the two components of the twofold satellite. -*qi* cannot combine with the andative directional -*qu*, nor be followed by Ground NPs. This justifies our treatment of these two elements as less prototypical. Unless specified, in the discussion below when we talk of 'Path Satellites' we will only designate the core members.

1.8. The pervasiveness of the two-fold directional [non-deictic+deictic]

As can be seen in the table above, Standard Mandarin allows both D_{nd} and D_d to be reduced to zero. However, the omission of the deictic component is subject to many restrictions. In brief, it may be omitted only when the non-deictic element is followed by a NP (Figure of Ground) (see Sugimura 1991, Liu 1998 and others). Table 3 gives the relative frequency of use of non-deictic directionals D_{nd} with and without deictic directionals D_d for the 77 VD constructions (excluding those with postverbal Ground Phrases or Figure NPs) which appear in the dialogues of a TV series (the 6 first episodes, about 5 hours). It shows that in most of the cases the use of a non-deictic directional implies the expression of the deictic direction as well, that is that pattern 2, $V_{co-e}D_{nd}D_d$, is the most frequent. The proportion of autonomous motion and caused motion clauses is given into brackets.

table 3: Correlation in the use of non-deictic and deictic directionals (TV series: *Jiéhūn shí nián* 1-6)

D_{nd} \ pattern	\emptyset	进 - <i>jin</i> in	出 - <i>chu</i> out	上 - <i>shang</i> up	下 - <i>xia</i> down	过 - <i>guo</i> across/over	回 - <i>hui</i> back	起 - <i>qi</i> up	total
1. $V_{co-e}D_{nd}$ (aut./caused)	/	/	/	2 (2/0)	8 (8/0)	/	/		10 (10/0)
2. $V_{co-e}D_{nd}D_d$ (aut./caused)	/	5(2/3)	12 (5/7)	1 (1/0)	5 (2/3)	13 (3/10)	16 (2/14)	1(1/0)	53(16/37)
3. $V_{co-e}D_d$ (aut./caused)	16 (2/14)	/	/	/	/	/	/	/	14 (2/14)

Only two non-deictic directional items ('up' and 'down') happen to combine with a co-event verb without a deictic directional (pattern 1). They are used after verbs of posture ('sit', 'kneel') where the deictic opposition is less likely to operate. Other directionals 'in', 'out', 'across/over', and the source-oriented 'up' only appear together with a deictic directional (pattern 2). Deictic directionals are more likely to appear without non-deictic ones, mainly in caused motion clauses (pattern 3, see example 29 below). Table 3 only lists directionals used in their spatial meaning⁸.

⁸ Although it is actually very tricky to establish a distinction between the different uses of directionals, we eliminated from our data the clearly non-spatial uses. To avoid too much arbitrariness, we made use of Liu Yuehua 1998's criteria. Liu (1998:

II. Directionals as bounders: the loss of argument structure

2.1. There is an ongoing discussion about the issue of which is the head in a VR (or VD) compound'. (V1, V2, double-head structure?)⁹. Yuan 2000 argues from argument selection, structural expansion and other evidence, that there is in Chinese a discrepancy between the semantic core of the VR compound (R) and its syntactic head (V), and that this discrepancy has historical and functional motivations.

Chinese is usually considered a serial-verb language. However, the combination of a co-event verb and a directional (VD) is not listed in the inventory of serial-verb constructions given in most frameworks, but treated as a subclass of Verb-Result constructions (VR constructions, see Ross 1990, Kang 2001)¹⁰. The next examples illustrate the resultative meaning of Chinese directionals, through a comparison between Japanese and Chinese. In spite of a very similar organization of the surface elements 'call + come', in Chinese, the Directional 'hither < come' expresses the motion of the patient, that is causative motion, whereas in Japanese the second of the two verbs linked by *te*, 'come', refers to the motion of the agent:

- | | |
|--|--|
| <p>(15) Jp. <i>kanojo o yondekitekudasai!</i>
 3S ACC call-TE-come-IMP
 Go to call her (and come back: you move)</p> | <p>(15') Chn. <i>bǎ tā jiàolai</i> 把她叫来!
 ACC 3S call-come
 Call her and make her come here. (she moves)</p> |
|--|--|

In the Japanese predicate [V-*te*-come] the deictic motion is that of the agent of 'call', that is 'you', the motion 'go' being presupposed by the use of the verb 'come'. In the Chinese sentence [V+come], the deictic motion is that of the patient of 'call'. Thus the Japanese sentence will be used when 'you' need to go somewhere and come back to the place where the speaker is, whereas the Chinese sentence can be used to ask you to call 'her' to come 'here', maybe without moving yourself, with a cellular phone, for instance, the point being that 'she' is caused to come here.

Historically, VD constructions likely originate from a reanalysis of serial-verb constructions where the verbs shared the same subject, the change being completed by the Tang 唐 area (8-9th cen., see Liang 2003, Wu Fuxiang 1996:395-396, Ota 1958:210).

Even if no agreement has been reached yet on the question of the 'head' of a VR compound in Chinese, nor about the definition of serial verb constructions, we can look at the problem from the point of view of the decategorialization (loss of 'verbiness') of Path Verbs when they follow manner or cause verbs.

2.2. Loss of argument structure

Consider first, in Standard Mandarin, the syntactic position of Deictic Directionals 来 *lai* and 去

distinguishes between a spatial, a fulfillment and an aspectual use of directionals. Although her criteria are not ideal, she gives very complete lists of each use, which can be used for reference. Note that her 'spatial' uses include some metaphoric uses too. Table 3 only lists directionals in their spatial use.

⁹ Cf. Tai 2003:308: "If we accept 'result' as a semantic prime underlying action-result verb compounds, it makes sense to take the second element as the center of predication, even though it cannot be analyzed as an independent transitive verb in surface syntax.". Shen 2003 opposes Tai's opinion that Chinese is not an S-language. Both papers discuss Talmy's views.

¹⁰ There is presently no agreement on which constructions should be treated as serial constructions in Mandarin. Most discussions target VR constructions and not VD constructions. Hansell 1993 treats average VR compounds like [beat+fall down] 'knock down' as a kind of serial verb construction (nuclear juncture) expressing direct causality. However, he excludes (note 1 of the paper) from these VR construction those where V2 is a directional complement because these are too grammaticalized.

qu : in Mandarin, Deictic Directionals follow the Ground Phrase, whereas Deictic verbs, like other Path verbs, take postverbal object Ground NPs:

(16) 去北京
qù Běijīng
 go Beijing
 ‘go to Beijing’.

(17) 回北京 去
huí Běijīng qu
 return Beijing go
 ‘go back to Beijing’

(18) 飞回北京去
fēihuí Běijīng qu
 fly-return Beijing go

(18’) *飞回去北京
 **fēihuiqu Běijīng qu*
 fly-return-go Beijing
 ‘fly back to Beijing (away from the speaker)’

This suggests that the original argument structure of the deictic verbs has been lost through their grammaticalization into deictic directionals. Note that in some southern Sinitic languages like Taiwanese and Cantonese, the Ground NP follows the deictic element of a VD compound: instead of the [fly-return Beijing go] used in Standard Mandarin (18), Taiwanese uses the order of (18’), [fly+return+go+Beijing], which suggests that the grammaticalization of ‘go’ and ‘come’ may be less thorough, or at least take different directions.

Secondly, in written Standard Mandarin, as illustrated above in examples 7, 11 and 12, the Ground NP may appear after the non-deictic Path Verb, seemingly as its argument. Path Verbs take Ground NPs as objects as mentioned in section 1.2.3 above. Tai (2003:309-310) uses this as evidence against an analysis of these Path Verbs as Satellites.

(19) John 飞 过 了 英吉利 海峡
John fēiguòle Yīngjìlì hǎixiá
 John fly-cross-PFV English Channel
 ‘John flew across the channel’

(19’) *John 飞 了 英吉利海峡
 **John fēile Yīngjìlì hǎixiá*
 John fly-PFV English Channel
 ‘John flew the English Channel’

vs. (19’’) John 过 了 英吉利 海峡
John guòle Yīngjìlì hǎixiá
 John cross-PFV English Channel
 ‘John crossed the English Channel’

For Tai (2003:308), “*guo* is a verb incorporating Path and is the center of the predication in the verb compound *fei-guo*, which indicates the completion of passing the channel”. This is quite convincing, as ground NPs do not require being marked as ‘place nouns’ by localizers, just like when they are the objects of Path Verbs (see 1.2.1 above).

However, in many northern (Mandarin) and central (Wu, Xiang) dialects¹¹, the core non-deictic Path Satellites cannot be followed by a Ground NP, that is [co-event verb + non-deictic directional + Ground NP] patterns like sentence (19) do not exist. This indicates that in many dialects, including the northern dialects belonging to the same group as Standard Mandarin, non-deictic path verbs have lost their argument structure too (here too *-dao* ‘to arrive > to’ is an exception). In the northern dialects we surveyed, only one element (similar in function to *-dao* ‘to’) is allowed to introduce Ground NPs expressing the ENDPOINT of the motion, and Ground NPs expressing SOURCE, ROUTE or UNREACHED GOAL of the motion must appear in a preverbal PP¹². Thus, the syntactic pattern given by Tai (2003) to prove the verbiness of directionals is actually limited to southern Sinitic languages (Cantonese, Hakka etc.), and to Standard Mandarin. Lamarre (2004) claims that in Standard Mandarin this pattern is actually a feature linked to the written language. Semantically, SOURCE and ROUTE are still likely to be construed as having some kind of duration, whereas the arrival to the endpoint location is definitely punctual and will only contribute to the bounded nature of the clause. [別紙参照]

2.3. Directionals are construed as endpoints: at most one (twofold) Directional Satellite per Co-event verb.

Slobin (1997:19) argued for a direct correlation between the language type and the possibility of appending multiple Path satellites to a single manner verb. (“A satellite-framed language invites the speaker to elaborate path descriptions by appending several satellites to a single verb of motion”). Goldberg and Jackendoff (2004) also mention about the English resultative construction that the resultative Phrase may be complex, like in ‘Pat ran down the hall out the door into the alley’.

In opposition to English, Mandarin allows at most one Directional Satellite per co-event verb. Thus in the following example, the English verb is followed by several satellites or prepositions, but Chinese requires as many verbs as there are directional satellites. This is consistent with the fact that in Chinese, [Verb +Directional] constructions function as a subset of the resultative constructions, where the directional item makes the clause bounded. (2) is taken from *Harry Potter* (vol. 2 chap. 4).

- (23) [Harry] quietly as he could, slipped out of the cabinet, past the glass cases, and out of the shop door.
 他 尽可能 悄无声息地 钻 出 柜子, 走 过 那些 玻璃柜台, 溜 出 了 店门。
tā jǐnkěnéng qiǎowúshēngxīde zuānchū guìzi, zǒuguo nà xiē bōlǐ guítái, liūchūle diànmén
 he do:his:best silently **make:one's:way-exit cabinet, walk-cross those glass cases, sneak-exit-PFV shop-door**

Eng.: [V_{co-e}+Sat₁+Prep.+G₁+Sat₂+G₂+and+Sat₃+Prep.+G₃] vs.

Chn: [V_{co-e1}+Sat₁+G₁+V_{co-e2}+Sat₂+G₂+V_{co-e3}+Sat₃+G₃]

As a consequence of the resultative construction, the Ground NPs, when overtly expressed after the verb, are construed as ENDPOINTS of the motion, even when semantically they express the SOURCE or the ROUTE.

¹¹ From Lamarre’s field data for Jizhou (Hebei), Heyang (Shaanxi) and several Shanxi dialects. See Tang & Lamarre (forthcoming) and Lamarre (2005) for further details. Liu Danqing (2003:274-5) mentions this for Wu dialects.

¹² See Tang and Lamarre (forthcoming) and Lamarre (2005) for further examples and detailed discussion.

For instance in ex. 24 satellite *-chu* 出 ‘exit’ introduces a SOURCE NP, but once the postverbal slot is filled in, no spatial endpoint of the motion is allowed in the sentence¹³. The only way to express both the spatial SOURCE and the spatial ENDPOINT of a motion in the same verb phrase is to put the former in a preverbal PP, like in the following example where the directional ‘return / back’ introduces the ENDPOINT:

- (24) ...能 从 火车站 一直 走回 滨河路 去。 [TV *Jiéhūn shí nián* 8]
néng cóng huǒchēzhàn yízhí zǒuhuí Bīnhélù qù.
 can from station straight walk-return Binhe street go
 ‘you can walk back to Binhe Street all the way from the station’

2.4. Spontaneous motion vs. caused motion

Talmy (2000:64-66) commented on languages like Emai and Tzeltal which use both Path Verbs and Path Satellites to encode motion events, in the following words:

“a language can characteristically employ one conflation type for one type of Motion event, and characteristically employ a different conflation type for another type of Motion event.” [p. 64]

“Emai has an extensive set of Path Verbs, much like Spanish, but in a Motion sentence, it generally uses this set only for self-agentive motion. It instead uses a main verb with Co-event conflation for nonagentive and agentive motion. It can use this latter type for self-agentive motion as well, if the Manner is other than of ‘walking’” [p. 65]

Chinese also exhibits a similar link. We will show in the sections below that Chinese can use Path verbs to encode self-agentive motion events, but can only use the combination of a co-event verb and a Path satellite to encode caused motion events.

Spontaneous motion

Spontaneous motion (what Talmy calls self-agentive motion) may be encoded in Chinese either by a Path verb (27), or by a combination [Co-event verb + Path satellite] (28, 29). Both types of encoding are frequent in colloquial speech.

- (27) 过来一起吃吧。 [TV *Jiéhūn shí nián* 3] [Path verb+ D_d].
guòlai yìqǐ chī ba
cross-come together eat HOR
 ‘Come over to eat with us’
- (28) 那个 周国庆 不是 要 搬 过 来 吗? [TV *Jiéhūn shí nián* 1] [V_{co-e}+D_{nd}+D_d]
Nèige Zhōu Guóqīng búshì yào bān guò lái ma
 that CL Zhou Guoqing NEG be want **move-cross-come** Q
 Isn’t that guy...Zhou Guoqing going to move in (here)?
- (29) 这是我 嫂子, 刚刚 从 单位 赶 来 的 [TV *Zán lǎobǎixìng -- Bànri qíyuán*] [V_{co-e}+D_d]
Zhè shì wǒ sāozi, gānggāng cóng dānwèi gǎnlai de.
 This be 1S sister:in:law, just from work **hurry-come** NOM
 She is my sister in law, she’s just rushed here from work.

¹³ As noted above in section 2.4.2, there are many dialects which do not allow Path Directionals to introduce Ground NPs. As a result, in such dialects the SOURCE can be expressed only before the verb, in a PP, introduced by the preposition ‘from’.

For what Talmy calls ‘non-agentive motion events’, involving inanimate figures (subject of the sentence) or animate figures not controlling their motion, both encoding types are attested too. Most inanimate Figure NPs appear, likely for pragmatic reasons, in sentences using a combination of a co-event verb and a Path satellite (ex. 30). Path verbs are used for natural phenomena (wind, cf. ex. 31) or inanimate NPs for which human control is implied (cars etc.).

- (30) 菜篮子翻了, 萝卜、西红柿都滚出来了。(Hou et al. 2001:203)

càilánzi fān le, luóbo, xīhóngshì dōu gǔnchulai le.

shopping: basket turn: over CRS, turnip tomato all **roll-exit-come** CRS

買い物かごがひっくり返って、大根やトマトがみんな転がり出た。

The shopping basket turned over, and the turnips and tomatoes all rolled out.

- (31) 门缝子进来的凉风, 像一群小针似的往头上刺。(Luótuo Xiángzi ch. 12)

Mén fēngzi jìnlai de liángfēng, xiàng yìqún xiǎo zhēn shìde wǎng tóushang cì.

door: crack **enter-come** SUB cold wind, like one herd little needle like toward head-upside prick

冷たい透き間風が、針のように頭につきささった。『駱駝祥子』12章

‘The cold wind coming in around the door stabbed at his head like a bunch of little needles.’

Caused-motion

Caused-motion events (what Talmy calls ‘agentive motion events’) cannot be encoded by Path verbs alone, because Path verbs are non causative (when they express spatial motion at least, see section 1.2.4). In other words, the expression of the Co-event is compulsory for caused-motion events. Table 4 below compares Chinese with two V-languages, French and Japanese. The latter use Path verbs to encode caused motion, whereas Chinese has to use a co-event verb:

In the following examples, the Figure NP is covert (in 32) or expressed before the verb (with the help of the object marker *bǎ*, in what is sometimes called a ‘disposal sentence’). Example 33 also contains a self-agentive motion event ‘burst in’.

- (32) 快! 推进去! [TV *Zán lǎobǎixìng -- Bànri qíyuán*]

kuài tuījìnqu

quick! **push-enter-go**

‘Hurry up! Push [him] in!’ [a patient at the hospital, covert Figure, covert Ground]

- (33) 我爸闯进去把我揪出来了。 [TV *Dōngběi yì jiā rén* 5]

Wǒ bà chuǎngjìnqu bǎ wǒ jiūchulai le

1S dad **rush-enter-go** CC 1S **grasp-exit-come** CRS

‘Dad burst in and grabbed me out.’ [in / out of the movie theater, covert Ground]

In a complementary or split system, as defined by Talmy himself, the type of encoding differs according to event types, i.e. varies along with parameters such as volition (control exerted by the Figure on its motion) and the intervention of an external causer. The fact that languages that are genetically unrelated and are spoken on different continents such as Chinese, Emai and Tzeltal show similarities pertaining to the distribution of these patterns according to event types hints at the importance of these parameters.

To treat Chinese as a split-pattern language also fits with its historical evolution: Chinese underwent a typological shift from a V-language to an S-language (Talmy 2000:118, Li Fengxiang 1997, see Liang Yinfeng 2003 too).

III Directionals, satellites and boundedness

3.1. Correlating patterns in apparently unrelated domains of the language

In a note in a recent paper, Slobin (2004:257, note 17) acknowledges that Talmy's typology deals not only with verb semantics, but also with the way Path (and change of state) is encoded in languages (like in Talmy 1991):

...Talmy suggests that S- and V-languages show distinct patterns across a number of event types: motion, aspect, state change, correlated activities, and realization of goals. These suggestions go beyond the aims of this chapter, where we are concerned with applying the binary typology to the narration of motion events across languages.

In contrast to this view, I believe that the validity of Talmy's typology shows at its best when we consider the correlation between the encoding of the path in a motion event ('the ball rolled *in*') and the encoding of fulfillment in an event of realization (the police hunted the fugitive *down*) or the encoding of the changed property in an event of state change ('the candle blew *out*') (Talmy 2000: 214). As noted above, Path Satellites in Chinese are generally considered to be a subset of resultative postverbal elements, i.e. VD constructions are a subtype of resultative constructions. So if we look at things from Goldberg & Jackendoff (2004)'s point of view, our description of VD constructions should aim at the description of a 'subconstruction' of the resultative, taking into account both its specifics and its similarities with other subconstructions of the same family.

3.2. Satellites, constructions and boundedness in Mandarin

Talmy (2000:106-7) noted that in English, due to a typological peculiarity which makes prepositions and satellites appear in close vicinity (after the verb and before the Ground), these categories get easily confused, but that in most Indo-European S-languages they appear in different positions in the sentence. Many who question the validity of Talmy's typology question the existence of a cross-linguistic category of 'satellites', as well as the validity of their distinction from prepositions. In Chinese, at first glance, prepositions and Directionals typically appear in distinct syntactic positions (see section 1 above). Preverbal PPs have no effect on the telicity of the motion event, and may thus be used to express static Ground location of unbounded activities, such as 'to play in the bedroom' (*zài fángjiānli wánr* [at bedroom-inside play]). They also express source, or unreached goal: for instance, there is a whole set of half-lexicalized PPs corresponding to English 'upwards / downward / inward / outward / northward' (see ex. 5) etc., and they only appear in preverbal position (unreached goal). Postverbal Satellites (with or without

Ground NPs, more often without) are specialized in the encoding of a change of location¹⁴. On the whole, the Chinese sets of postverbal Satellites and preverbal prepositions do not overlap.

However, there is an important exception to this in Chinese: if we follow another characteristic attributed to satellites by Talmy (200:107), i.e. that Prepositions are in construction with a nominal that cannot be omitted whereas satellites are in construction with the verb and the Ground nominal can be omitted, then 到 *dao* ‘to arrive / to’ (and forms of similar functions) must be a preposition. Standard Mandarin at least does not allow [V-*dao*+zero Ground NP+deictic directional] (some non standard northern dialects allow such expressions). This proves that the distinction Talmy makes between two different classes of words, satellites and prepositions, may not be the key to this issue.

Chinese data rather hint at the prevalence of the construction meaning: postverbal elements (Path satellites, and even more so the preposition –*dao*) are linked in Chinese with boundedness. This has been noted before:

- “...most directional endings do not merely indicate the direction of movement vis-à-vis a target. They also indicate the successful completion of motion vis-à-vis a target.” (Ross 1990:67)
- “...the directional complements [...] when combining with verbs of Activity (motional or non-motional), add the notion of goal or end-point to the durative situation described by the Activity verb, which otherwise would have no terminus. Thus they affect the intrinsic temporal nature of the situation, and change an Activity into an Accomplishment (p. 311).[...] We assert that they describe telic situations.” (Kang 2001:327)

Although the boundedness of VD constructions has not been given the detailed study it deserves (Ross and Kang’s remarks are based on fragmentary evidence), it is obvious for ‘V-*dao*+G’ constructions, and less obvious but still on the whole true for VD constructions.

From a diachronic point of view, in ancient Chinese the postverbal position was not restricted for Ground NPs according to their meaning. Through a reordering process which took place between the 1st and 6th cen.¹⁵, only Ground NPs expressing resultative location were allowed to stay after the verb. The formation of Verb-Result and Verb-Directional constructions dates from roughly the same period: 3rd to 8th cen. The shift from a V-language to an S-language (see Li Fengxiang 1998, Liang Yinfeng 2003) occurs about the same time too. This is no coincidence.

3.3. Satellites, constructions, and boundedness in other S-languages

The link between Path satellites and boundedness is usually mainly discussed from the point of view of the derived aspectual meaning of some specialized path satellites (this for Chinese too, where especially in Southern Sinitic languages Directionals are a major source for aspect markers, see Brinton

¹⁴ On the issue of the [Verb+在+Ground] construction with a static or durative meaning, see Chirkova & Lamarre (to appear), who show that in spoken Peking Mandarin this construction basically expresses a terminative change of location, in spite of the static ‘preposition’ 在 appearing in the slot of the Satellite.

¹⁵ See Peyraube 1994 for an account in English of the question. Recent studies based on more exhaustive data have confirmed this.

1988 for English). This has masked another interesting phenomenon: in many S-languages, path satellites regularly exhibit a bounding meaning within the range of their spatial functions, and regularly differ on this from PPs, whereas in V-languages the opposition between bounded and unbounded path is linked more to the semantic features of verbs and prepositions, and even to context (the shape or size of the Figure and the Ground NP etc.).

It cannot be a mere coincidence that in order to introduce the European/American/Russian reader to Chinese directionals, two classical works on Chinese grammar refer to Russian and German prefixes. Chao (1968:459) remarked that Chinese “Directional complements behave very much like German separable prefixes”, and gives in his description of Mandarin a table of comparison. Jaxontov (1957/ Jaxontov 1987:141; 148-149) noticed the striking similarity of Chinese postverbal element R and Russian preverbal suffixes: neither is itself an aspect markers *per se*, and both have an autonomous and concrete (often spatial) meaning. However, when they are added to a verb, they change its aspectual features, i.e. in both languages they behave as *bounders*. In Russian (Talmy 2000:121-22) and Polish (Dąbrowska 1996), forms which behave respectively like satellites (preverbs) and prepositions (positioned after the verb) may share the same etymology. Ex. 36 and 37 are taken from Dąbrowska (1996:474) and describe respectively an unbounded and a bounded motion event, where *do* is both a “goal preposition” and a prefix coding the “attainment of a goal”, which “profiles just the final stages of the trajector’s movement” (Dąbrowska *ibid.*). Thus the use of *do* as a preverb does not preclude its use as a preposition; in 37 both appear in the same clause:

- | | |
|---|---|
| (36) Biegła do domu.
[She ran to house]
‘She was running to the house.’ | (37) Dobiegła do domu.
[to-she ran to house]
‘She ran to (as far as) the house./She reached the house running.’ |
|---|---|

We find similar pairs in Hungarian: in 39 the path satellite *át* ‘across’ functions as a preverb and plays a bounding role, whereas its position after the verb and before the Ground NP in 38 makes the clause unbounded (38 and 39 are taken from Knittel et al. 2002). Note that Hungarian differs from Polish in that it does not allow the path preverb to appear in a clause together with its postverbal cognate, and additionally Hungarian uses postpositions and not prepositions (40)¹⁶:

- | | |
|---|---|
| (38) Péter men-t-∅ át a híd-on
Peter go-PAST-3S across the bridge-SUPERESSIVE
‘Peter was crossing the bridge’ [Fr. <i>traversait</i>] | (39) Péter át-men-t-∅ a híd-on
Peter across-go-PAST-3S the bridge-SUPERESSIVE
‘Peter crossed the bridge’ [Fr. <i>a traversé</i>] |
| (40) *Péter át-men-t-∅ át a híd-on
Peter across-go-PAST-3S across the bridge-SUPERESSIVE
‘Peter was crossing the bridge / Peter crossed the bridge’ | |

Hungarian is a typical S-language, which only uses deictic path verbs ‘come’ and ‘go’, and has to combine a manner verb or a deictic verb with path satellites (preverbs) to express path (i.e., Hungarian can only say ‘come out’ or ‘run out’ but not ‘exit’). Note that similar pairs are regularly formed by replacing the verb

¹⁶ We thank Nagy Anita for her help to elicit the Hungarian sentences and for providing the examples we needed (38 to 43).

‘go’ by various manner verbs like ‘run’, ‘swim’ etc., and the directional item ‘across’ (preverb/postposed directional item) by ‘up/down/out/in’ etc. Such minimal pairs of bounded and unbounded clauses are found when the verb is in the present tense as well, which proves that the boundedness is not triggered by the past tense. The next sentences use the manner verb ‘to run’. Sentence 41 answers to the question ‘what are you going to do next?’ with a bounded clause, and sentence 42 answers to the question ‘what are you doing right now?’ with a nonbounded clause. 41 is given a future interpretation and 42 a progressive one (as noted in Knittel et al. 2002:51-53). In sentence 43 the verb is in the past tense, and the clause is used as a background frame for another event, used in a narrative, and is unbounded:

- (41) *Átszaladok a híd-on.*
 Across-run-PRE-1S the bridge- SUPERESSIVE
 ‘I’ll run across the bridge.’ / ‘I am going to run across the bridge !’
- (42) *Szaladok át a híd-on.*
 run-PRE-1S across the bridge- SUPERESSIVE
 ‘I am running across the bridge’ ... (unbounded, autonomous clause)
- (43) *Szalat át a híd-on, amikor ...*
 run-PAST-3S across the bridge- SUPERESSIVE when...
 ‘He was running across the bridge, when...’ (background clause)

Let us now turn again to the issue of the difference between satellites and adpositions. The two characteristics attributed by Talmy (2000:104-109) to satellites vs. prepositions in many languages, i.e. their different position in the clause and the compulsoriness of the Ground NP, sometimes clash. They clash in Chinese, which shows a very clear pattern of preverbal PPs and postverbal satellites for which the position is linked with boundedness, but where one of the postverbal elements, *-dao* ‘to’, shows preposition-like features (compulsory presence of the Ground NP). They clash in Hungarian too, where preverbs can express the path with or without the overt expression in the clause of a Ground NP, whatever their position in the clause (before of after the verb), and their different behaviour with respect to bounding.

3.4. Telic and atelic locative PPs in French

Slobin (2004:248) noted that in some S-languages such as Dutch, the meaning of a satellite depends on the construction type in which it occurs:

- (44) *de jonge loopt het bos in*
 the boy walks the wood in
 ‘the boy walks into the woods’ [path: boy enters woods]
- (45) *de jonge loopt in het bos*
 the boy walks in the woods
 ‘the boy walks in the woods’ [non-path: boy located in the woods]

Such a contrastive pair is not seen in a V-language like French, where there is only one word order. The preposition *dans* ‘in’ may indifferently be used to express static location, location of an atelic activity, or to introduce the goal in a change of location (which implies then boundary-crossing), according to the semantics of the verb, the Figure and the Ground NP. For instance in the following sentences, preposition *dans* will only express the location of an unbounded activity (46) for the verb ‘to walk’, but for other verbs

such as ‘to rush’, the sentence will express a bounded path (change of location, ex. 47). For a verb such as ‘to run’, both readings will be available (48)¹⁷:

- (46) l'enfant marcha dans les bois
the child walked in the woods (≠ into)
- (47) l'enfant se précipita dans les bois
the child rushed in [= into] the woods
- (48) l'enfant courut dans les bois
the child run in the woods' [both readings available]

This is in no way restricted to *dans*; *sur* ‘on’ shows the same ambiguity. The following examples are taken from the short story *La patte du chat* (*The cat's paw*, by Marcel Aymé). Example 49 involves the activity verb *marcher* ‘to walk’, and combined with PP [*sur* + Ground NP] expresses an unbounded activity (the girls ask the mouse to walk on the log to make their parents believe the cat is inside the bag; making for an undirected motion), whereas ex. 50 involves the dynamic manner verb *sauter* ‘to jump’, which combines with the same PP [*sur* + Ground NP] to express an end-point location.

- (49) On ne te demande qu'une chose, c'est de marcher sur la bûche de bois qui est enfermée avec toi,...
‘The only thing we ask you to do is to walk on the log which is shut in with you’ (≠ onto)
- (50) – Ah ! C'est comme ça ? s'écria le chat en sautant sur le rebord de la fenêtre.
‘...said the cat while jumping on the window sill’ (= ‘onto’)

This proves that the same logic is at work to determine whether a PP expresses the location of an unbounded or a bounded Path, independently from the fact that ‘in’ involves boundary-crossing and not ‘on’. Thus, if Talmy’s typology is valid, the point is not that V-languages only express path in verbs, as even when boundary-crossing is involved, path meaning is frequently in French conveyed by PPs. But French does not show any systematic opposition between satellites and prepositions. Most French prepositions obligatorily take a NP, and can only appear in one position in the clause. This conclusion supports Narasimhan (2003)’s findings on Hindi, another V-language.

3.5. Satellites, prepositions, and resultatives in English

In English, a supposedly clear-cut S-language, there is no regular correlation between the categories ‘satellite’ vs. ‘preposition’, and the boundedness of the clause they enter. Cappelle & Declerck (2005) describe the complex interaction between the various components of a motion event which combine to produce a bounded or nonbounded clause, including the specification of direction particles or prepositions as having or lacking an end-boundary. These specifications do not overlap (or at least not totally) with the syntactic behaviour of these entities as particles, prepositions or both (Cappelle & Declerck 2005:902). There is no agreement either on the aspectual status of resultative constructions in English. Although many studies emphasize that resultative clauses express state change and are therefore

¹⁷ This was noted by in Gross 1975:219.

basically telic (Rothstein 2004: chapter 3), Goldberg and Jackendoff (2004, section 4) insist that there are also atelic resultatives:

(51) *End-bounded spatial PPs, telic resultatives:*

- a. Bill floated into the cave (*for hours [on non-repetitive reading])
- b. Bill pushed Harry off the sofa (*for hours [on non-repetitive reading])

Non-end-bounded spatial PPs, atelic resultatives:

- c. Bill floated down the river (for hours [non-repetitive])
- d. Bill pushed Harry along the trail (for hours [non-repetitive])

Interestingly, Chinese, whose resultative constructions are known to be more productive than English ones, cannot encode sentence 51d. through a resultative construction. ‘Along’ cannot appear in a postverbal position (52, see also above ex. 4’), and the only way to express 51d is by using ‘along the trail’ as a preverbal PP, and to add the perfective marker *-le*. The action is thus completed temporally (perfective), but has no spatial boundary (ex. 53):

(52) *小王 推老刘 沿着 小路。 / *小王 把老刘 推了 沿着 小路
 *Xiǎo-Wáng tuī lǎo-Liú yánzhe xiǎolù / *Xiǎo-Wáng bǎ lǎo-Liú tuī(le) yánzhe xiǎolù
 Young-Wang push old-Liu along trail / young-Wang ACC old-Liu push PFV along trail

(53) 小王 沿着 小路 推老刘 推了好几个小时。
 Xiǎo-Wáng yánzhe xiǎolù tuī lǎo-Liú tuīle hǎojǐ ge xiǎoshí
 Young-Wang along trail push old-Liu push PFV many CL hours
 ‘Bill pushed Harry along the trail (for hours)’ [in a wheelchair for instance]

Sentence 51c. involves the path ‘down’, but here too, although in Chinese there is a path satellite available with an adequate meaning, *-xia* ‘down’, such a VD construction is not easily compatible with a nonbounded reading (54). The best way to obtain a nonbounded meaning in a natural sentence is to use a preverbal PP and to make the sentence perfective through the perfective marker *-le* (54’)¹⁸.

(54) ?小船 漂下河 去了 好几个小时。
 xiǎo chuán piāoxià hé qùle hǎojǐ ge xiǎoshí
 bark float descend river go PFV many CL hour /

?小船 漂下了 河 好几个小时。
 bark float descend PFV river many CL hour
 xiǎo chuán piāoxiàle hé hǎojǐ ge xiǎoshí

(54’) 小船 往河的下流 漂了好几个小时。
 xiǎo chuán wǎng hé de xiàliú piāole hǎojǐ ge xiǎoshí
 bark toward river GEN lower reaches float PFV many CL hour
 ‘the bark floated down the river for hours’

Equally interestingly, these two nonbounded English sentences cannot be encoded with a [preverb+co-event Verb] combination in Hungarian either: ‘along’ does not exist in the inventory of directional preverbs (which includes ‘in’, ‘out’, ‘across’, ‘down’, ‘up’ etc.). And like in Chinese where the use of a postverbal directional quite strongly entails a bounded event, the use of the preverb *le-* ‘down’ implies in Hungarian a bounded clause and does not fit with the intended nonbounded meaning (55). In

¹⁸ The question marks reflect here heterogeneous opinions obtained from several language consultants. Two of our the three native speakers we consulted rejected the sentence altogether, the third one deemed it unnatural.

order to form a nonbounded clause like ‘floated down the river for hours’, Hungarian would have to move the preverb *le* to a postverbal position (and to put it before the NP ‘river’), like in 55’:

(55) *Órák óta lecsorgott a folyón [inadequate for a nonbounded meaning]
 hours since down-float-PAST-3S the river-SUPERESSIVE

(55’) Órák óta csorgott le a folyón
 hours since float-PAST-3S down the river-SUPERESSIVE
 ‘He had been floating down the river for hours’ [nonbounded]

. Conclusion

We have shown above that in Chinese and Hungarian, two genetically unrelated S-languages, features like boundedness and ‘satellites’ overlap much more neatly than in English (see Kiefer 1994 and Komlósy 1994 for more details on Hungarian resultative constructions). What we have to do now to know better what the key features underlying Talmy’s typology are, is to unravel language by language the correlation between:

- ☆ Temporal boundedness vs. nonboundedness (the overall aspectual nature of the clause)
- ☆ Spatial boundaries and endpoints, conveyed by locative phrases and/or the specification of the adposition/particle-like entities.
- ☆ The presence of distinct syntactic categories of directional items like Satellites (verb particles, preverbs) vs. adpositions, kept distinct by the obligatoriness of the Ground NP and/or by their position in the clause
- ☆ The role of constructional mapping, and of language-specific constructions like resultative constructions in the semantic extension of verb semantics (allowing verbs like ‘sneeze’ or ‘cheat’ to appear in motion event clauses).
- ☆ causation, argument structure etc.

In V-languages, the features above show no special link or overlapping, whereas in S-languages they do (to various degrees). Chinese data contribute to feed the debate: Chinese shows many features of a typical S-language, in that it does not use verb-particles, but ‘satellites’ of verbal origin. Its PPs are neatly distributed before or after the verb according to the semantic relation the Ground NP bears to the motion (SOURCE before, ENDPOINT-LOCATION after). It uses the same device to distinguish between bounded and nonbounded motion events (‘to’ vs. ‘towards’). Its path satellites bear the same relation to the verb they follow as what are usually called ‘resultative complements’, that is they combine with the verb to form a kind of resultative construction. Some of its regional variants at least show a thorough correlation between syntax (resultative construction), semantics (endpoint location) and temporal boundedness¹⁹, and totally exclude ROUTE and SOURCE NPs from the postverbal position. More attention paid to the diversity and unity of S-languages concerning the few parameters we listed above should shed more light on the question.

¹⁹ It can be argued that Chinese provides evidence which supports Depraetere 1995 or Cappelle & Declerck views about the necessity to distinguish between telicity and boundedness: ‘towards’ phrases and ‘to’ phrases appear in a different slot in the clause in Chinese, and postverbal ‘to’ phrases are not compatible with imperfective aspect markers.

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