Morpheme Order Constraints Upside Down: Verticality and Other Directions*

CAROLINE IMBERT
University of Grenoble

This paper addresses a selection of languages which exhibits morphosyntactic structures that formally have little in common: Burmese and Arakanese (Tibeto-Burmese), Popti' (Mayan), Homeric Greek (Indo-European) and Mandarin Chinese (Sinitic). However, they all seem to organize the surface order of their Path-encoding elements according to two conceptual distinctions: (a) the Axiality or non-Axiality of Path, and (b) Deixis. Section 1 constitutes a brief terminological clarification about the use of the terms Path, Axiality and Deixis in this paper. Section 2 crosslinguistically observes Path-encoding elements and their surface ordering issues in two types of monoclausal constructions: multiple affixation and complex predication. Section 3 draws conclusions from this observation in view of further research. The major part of the data collection was led by my colleagues Alice Vittrant (Burmese and Arakanese); Colette Grinevald (Popti'); Mariarosaria Gianninoto, Ming Xiu, and Li Ling (Mandarin Chinese). The Homeric Greek data was collected by myself from the Perseus Digital Library (Crane 1997); finally, some Tetun Dili (Malayo-Polynesian) data is cited for purposes of comparison after Son & Svenonius (2009). The analysis of the data benefited from our collective work within the frame of the CNRS "Trajectory" Project (Typology of Path expressions) and of a forthcoming Project on Path and morpheme order.

* The "Trajectory" Project was coordinated by Jean-Michel Fortis, Colette Grinevald, Anetta Kopecka, and Alice Vittrant; it aimed to collectively elaborate a typology of Path expression in a diversity of languages, based on first-hand data. In addition to a number of academic publications, it produced several lexicons, questionnaires and a DVD (elaborated by Miyuki Ishibashi, Anetta Kopecka, and Marine Vuillermet in 2006) for the elicitation and analysis of Path expressions.

1 Path, Axiality, Deixis, and other terms

1.1 Path

“Path” is used in this paper as in Talmy (1985, 1991, 2000) and after the works of the “Trajectory” Project – cf. a state-of-the-art in Imbert (2012) and collaborative works such as Grinevald (2011), Imbert, Grinevald, and Söres (2011), Fortis and Vittrant (2011). The notion of Path was further detailed in the literature and given terminological extensions. Among such extensions, the notion of Telicity allows for the distinction between **atelic Path** (the boundary of the Ground is not reached, as with *toward* in *The boy ran toward the house*) and **telic Path** (the boundary of the Ground is reached or even crossed, as with *to* or *into* in *The boy ran (in)to the house*). The notion of Path was also divided into different sets of Path sub-types, or **Sub-Paths**. A commonly addressed set of Sub-Paths is that of Source (*out of, off, from*), Median (*through, along, across*) and Goal (*to, toward, into*); cf. Borillo (1998), and also the typology proposed by Bohnemeyer et al. (2007). This paper focuses on the expression of **elaborate Paths**, namely Paths segmented into several Sub-Paths and expressed through a combination of several Path-encoding elements, within a single Motion event. For instance in English, *The bird flew up into the sky*, with *up* and *into* as Path-encoding elements. The expression of an elaborate Path may be monoclausal or multiclausal depending on the language and on the construction; cf. Bohnemeyer et al. (2007) for the notion of “clausality”, Ibarretxe-Antunano (2009) for the relation between the expression of elaborate Paths and the morphosyntactic toolbox of the language. Finally, some concepts are often involved in a Motion event that tend to constrain or at least to participate in the morphosyntactic organization and surface ordering of the expression of Path. Their frequent co-occurrence with Path in Motion event expressions motivates here the coinage of “Co-Path” as a good cover term. Such concepts are **Manner of Motion** (e.g. Slobin 2004), Posture and Position, and Associated Motion (Vuillermet 2012a, 2012b, to appear; Guillaume 2006, 2009).

1.2 Axiality

In this paper, the term Axiality refers to the distinction between axial and non-axial Paths. Axial Paths are overtly expressed as being organized with respect to an axis: a Vertical axis (*up* and *down, ascend* and *descend*), a Horizontal axis (*forward* and *backward*), or an axis which may be defined as vertical or horizontal depending on the context (*along*). Conversely, non-axial Paths are not overtly expressed as being organized with respect to an axis. The concept of “axis” acts toward Path as a plant support acts toward a plant: the directionality of Path follows an axis. Path-encoding elements such as *up* and *down, ascend* and *descend* specifically denote the Figure as following a Vertical axis: what is primarily encoded in such Path-encoding elements is Verticality. Path-encoding

element such as *forward* and *backward*, and for instance the English verb *recede*, specifically denote the Figure as following a Horizontal axis: the sea *recedes* at low tide, a turtle *recedes* into its shell, following the same horizontal axis that led them to high-tide level or out of their shell. This differs from the verb *return*: when one returns to a shop where they forgot their wallet, the verb *return* does not explicitly denote the presence of a directional axis acting as a support for the Path followed by the Figure. In other words, Axiality in Path is the explicit and perfect adequation between an axis and a Path; whereas Non-Axiality is the absence of explicitness regarding such a constraint.

1.3 Deixis

Deixis is the act of referring to the context of a utterance; in spatial contexts, it is the act of referring to one or the other Participant as a landmark (e.g. to the speaker, away from the speaker).¹ In the data examined in this paper, Deixis is interesting in terms of morpheme ordering: in those complex-predication and multi-affixed verbal constructions, Deixis is co-expressed with or expressed in the same slot as non-axial Paths, and consistently exhibit the same ordering pattern: elements expressing deictic non-axial Paths tend to occur in the rightmost slot of the complex predicate or in the slot farthest from the verb stem in the multi-affixed verb; whereas elements expressing axial Paths tend to occur in the leftmost slot of the complex predicate or in the slot farthest from the verb stem in the multi-affixed verb.

Two remarks are in order here. First, although Deixis is commented in the light of a certain type of Path (non-axial) in this paper, it should not be conceptually described as a “Sub-Path”: it is clearly at a higher conceptual level. Second, in some languages, Deixis may also be co-expressed with axial Paths, more specifically vertical Paths, as shown by Diessel (1999:42-43).

2 The Ordering of Path Elements: A Crosslinguistic Observation

This section observes the expression of elaborate Paths in a selection of languages. It focuses on the relative ordering of Path-encoding elements in complex predication and multiple verbal affixation.

The templates shown in this section all follow the same pattern: (a) All of the templates show all the slots that may be deduced from the effective location of the Path-encoding elements in the string of verbs or affixes. (b) The first line numbers the different slots of the construction that encodes an elaborate Path, from left to right. As will be discussed, elements may appear in different slots depending on

¹ Deixis has been well-defined in the literature, cf. Fillmore (1982), Weissenborn and Klein (1982), Imai (2009), inter alia. It has been addressed as a notion separate from Path, since it is a concept of its own and it extends beyond the functional domain of space.

the context; thus, what will be referred to as “reordering” in this paper corresponds to the formal reordering of elements into slots, not to a functional reordering of the slots themselves. (c) The second line identifies which concept or set of concepts is encoded by the elements present in that slot: Manner, axial Path, non-axial Path, etc. That second line may subdivide the slot in two, denoting that the speaker is constrained to choose between two concepts when expressing elements from a slot. For instance in Burmese, Slot 2 is subdivided between Slots 2a and 2b in the second line; this means that elements in Slots 2a and 2b may not co-occur in a construction. (d) The third line lists the Path-encoding elements that were elicited during the data collection for each slot. (e) A fourth line may denote grammaticalization phenomena.

2.1 Complex predication in Burmese and Arakanese

The data was collected by Alice Vittrant based on the Frog Stories (Mayer 1969) and an elicitation video material (DVD) from the “Trajectory” Project (Ishibashi, Kopecka, and Vuillermet 2006). The collection took place in Yangon, Myanmar, in 2008 and 2010. The table in (1) shows the template for Path-encoding complex predicates in Burmese. All of these elements are still attested as verbs; however, elements occurring in Slot 3 exhibit a process of grammaticalization that may be identified as auxiliarization. These Slot 3 elements may express deictic non-axial Path as shown in table (1), as well as Aspect and Modality (Vittrant 2005). This template is fairly stable in the language; however, elements in Slot 3 may also appear in other slots in certain contexts, as discussed below.

(1) Template for Path-encoding complex predicates in Burmese²

1	2		3
Manner	2a Telic (Non-Deictic Non-Axial)	2b Axial	Atelic (Deictic Non-Axial)
<i>khoN</i> ² ‘jump’ <i>pye</i> ³ ‘run’ <i>maɔN</i> ³ ‘drive’	<i>win</i> ² ‘go in’ <i>thwe?</i> ‘go.out’	<i>te?</i> ‘go.up’ <i>shin</i> ³ ‘go.down’	<i>la</i> ² ‘come/toward’ <i>θwa</i> ³ ‘go/away’
			Auxiliarization

The examples in (2a)-(2d) illustrate the template in (1); each example is labeled with the combination of slots it illustrates: for instance, example (2a)

² In these Burmese transcriptions, superscript numbers stand for tones; 1 notes the creaky tone, 2 the low tone, 3 the high-falling tone. The fourth tone is symbolized by the glottal stop at the end of the syllable. The first syllable in polysyllabic words is often atonal and characterized by the central vowel /ə/. Capital letters stand for consonants that are realized voiced or unvoiced depending on the context.

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illustrates the combination of Slot 1 with Slot 2. The complex predicates appear in bold:

(2) a. **1+2**

kaɔN ² ma ² -le ³	tə=yaɔʔ	θɛ ³	pɔ ² =Ka ¹ .ne ²
woman-DIMIN	1=CLF:human	sand	top=from

caɔʔ.toN ³	pɔ ² =Ko ²	khoN² tɛʔ	=Tɛ ²
rock	top=OBJ	jump go.up	=REALIS

‘The young lady jumps from the sand on the rock’

b. **1+3**

θu ²	caɔN ³ -Ko ²	Ka ³	maɔN³ θwa³	=Tɛ ²
3SG	school-DIR	car	drive go/away	=REALIS

‘He drove to school [away from the deictic center]’

c. **2+3**

thwɛʔ la²	Piɔ ³ .T ¹ θɔ ³	pɔ ² =Ka ² .ne ²
go.out come/toward	SUB.TEMP	sand top=S(ABL)

kaN ³ .saʔ	=Ko ²	shiN ³	ne ²	=Tɛ ²
bank	=DIR	go.down	INACC	=REALIS

‘After going out [toward the deictic center], from the sand, [he] went down to the bank’

d. **1+2+3**

kəle ³	tə=yaɔʔ	piN ² .le ²	θɔN ²	sɛʔ	=Ka ¹ .ne ²	piN ² .le ²
kid	1-CLF	sea	shore	bank	=from	sea

the ³ =Ko ²	pye³	shiN³	θwa³	=Tɛ ²
interior=DIR	run	go.down	go/away	=REALIS

‘(A) kid runs down [away from the deictic center] into the sea from the seashore bank’

The table in (3) allows a comparison with the template for Burmese in (2), by showing the equivalent template for Arakanese. First, Arakanese seems to be able to express, within one complex predicate, both Telicity (Slot 2) and Axiality (Slot 3), while in Burmese Telicity (Slot 2a) and Axiality (Slot 2b) cannot occur in the same complex predicate. Second, in Arakanese, the combination 1+2+3+4 in one clause is not attested: Slot 1 (Manner) should be expressed in a different clause.

(2) Template for Path-encoding complex predicates in Arakanese

1	2	3	4
Manner	Telic (Non-Deictic Non-Axial)	Axial	Atelic (Deictic Non-Axial)
<i>bri</i> ³ 'run'	<i>wɔN</i> ² 'go.in'	<i>cha</i> ¹ 'fall' <i>shoN</i> ² 'go.down' <i>tɔʔ</i> 'go.up'	<i>la</i> ² 'come/toward' <i>la</i> ³ 'go/away'

Example (4) illustrates the maximal combination attested in the data (2+3+4):

- (4) **2+3+4**
*ye*² *le*²*ka*³ *thɔʔ=Ka*¹ *ni*² *pri*³.*ke*² *ga*²*wan*²
 ANAPH stairs upon=S stay SUB.TEMP gown

waʔ *P(r)i*³ *wɔN*² *cha*¹ *la*² =*re*²
 wear SUB enter fall come/toward =REALIS
 'Then, from the stairs, wearing a gown, (she) enters falling down [toward the deictic center]'

As mentioned above, in Burmese, elements occurring in Slot 3 may also occur in other slots. Example (5) shows such mobility for the Path-encoding element *la*² 'come'. The sentence in (5) has two clauses: in the first clause, *la*² occurs in a Slot 3 position, while in the second clause *la*² occurs in a Slot 1 position:

- (5) a. First clause
*kaɔN*²*ma*²-*le*³ *tə=yaoʔ* *gu*² *the*³
 woman-DIMIN 1-CLF:hum cave interior
*Ka*¹ *thwɛʔ* *la*²
 S go.out come/toward
 'After she went out of the cave [toward the deictic center]...
- b. Second clause
*Pi3.Tɔ*¹ *ʔɛ.di*² *chiN*³.*taɔN*³ =*Ko*²
 SUB.TPS ANAPH basket =OBJ

*la*² *θɛ*² *θwa*³ =*Tɛ*²
 come carry go/away REALIS
 ...the young lady came and carried [away from the deictic center] this basket'

In the first clause, *la*² occurs in a Slot 3 position and functions as a deictic auxiliary. In the second clause however, *la*² occurs in a Slot 1 position and

functions as a lexical verb. Note how, when occurring in a Slot 1 position, *la*² ‘come’ may cooccur with a deictic element occurring in Slot 3 position (here *θwa*³ [away from the deictic center]). In other words, in the first clause, *la*² occurring in a Slot 1 position gives a deictic reading to the whole predicate *thwe?* *la*² ‘go out [toward the deictic center]’. In the second clause, with *la*² occurring in a Slot 1 position, the complex predicate *la*² *θe*² *θwa*³ ‘come and carry [away from the deictic center]’ should be read as sequential: first the action of coming (*la*² ‘come’), and then the action of carrying (*θe*² ‘carry’), the whole sequence being oriented away from the deictic center (deictic *θwa*³). Thus, in the second clause, the lexical verb *la*² ‘come’ denotes an action of its own and as such does not function as a deictic auxiliary encompassing the whole complex predicate with a deictic perspective – however, the deictic auxiliary *θwa*³ ‘[away from the deictic center]’ does, and is consequently placed in the rightmost slot of the combination of Path-encoding elements.

This situation in Burmese is reminiscent of what Son & Svenonius (2009) mention about Tetun Dili. Examples (6a)-(6b) illustrate this similarity. In Tetun Dili, the element encoding a deictic non-axial Path (here *b’a* ‘go’) in the complex predicate may occur in two different slots. It may occur to the right of the other verb of the predicate and give a deictic reading to the whole complex predicate, as shown in (6a) with the caused motion verb *lori* ‘take’. Or it may occur to the left of the other verb of the predicate, in which the complex predicate should be read as sequential, as shown in (6b) with the axial Path verb *sa’e* ‘ascend’:

- (6) a. (After Son & Svenonius 2009)
lori **hahaan** **bá**
take food **go**
‘Take food [away from the deictic center]’

- b. (After Son & Svenonius 2009, citing Hajek 2006)
nia **bá** (fali) **sa’e** iha foho
3SG **go** (again) **ascend** LOC mountain

nia leten
POSS TOP
‘He went and ascended to the top of the mountain (again)’

According to Son & Svenonius, this “reordering” in the formal position of the deictic verbs in Tetun Dili complex predicates is caused by the grammaticalization of those deictic verbs: they exhibit prepositional functions, as shown in example (7) with the preposition *ba* ‘to’, grammaticalized from *bá* ‘go’:

- (7) (After Son & Svenonius, citing Klinken et al. 2002)

Ami	fó-aluga	ami-nia	uma
we	give-rent	we-POSS	house
ba	malae	Tailândia	
to	foreigner	Thailand	
‘We rent out our house to Thai foreigners’			

Therefore, “reordering phenomena” in Burmese and Tetun Dili complex predicates occur under similar conditions: they affect the position of deictic non-axial Path-encoding elements. The latter may occur in a Slot 1 position and convey a lexical reading. Or they may occur in a Slot 3 position and convey a deictic reading encompassing the whole complex predicate. The main difference between Burmese and Tetun Dili lies in the path of grammaticalization followed by these deictic elements. In Tetun Dili, they grammaticalize into adpositions. But Burmese is a serializing language with a SOV constituent order: thus, adpositions occur in a preverbal position (namely left of the complex predicate), while the grammaticalization of the verbs contained in the complex predicate occurs from the right of that predicate. Therefore, Burmese “Slot 3” deictic verbs are not “adpositionalized”, but auxiliarized.

2.2 Multiple verbal affixation in Popti’

The data was collected by Colette Grinevald (formerly Colette Craig) over several years of fieldwork. The table in (8) shows the template for Path-encoding multiple verbal affixation in Popti’. These affixes are called “directionals” by the mayanists. They are grammaticalized from verbs (cf. a summarizing table in Grinevald 2011:63), and all of them still exist as verbs in the language. Functionally, these directionals are purely adverbial and cannot work as adpositions; Popti’ exhibits a separate set of adpositional elements. This template is stable in the language and the directionals cannot move between slots. All slots (1, 2, 3, 4) may be expressed together in one single construction. Interestingly in Popti’, Telicity (Slot 3a) and Axiality (Slot 3b) cannot occur in the same combination; this situation is reminiscent of that observed in Burmese in Section 2.1. Note also how Slot 3b gathers both Axiality and Median.

(8) Template for Path-encoding multiple verbal affixation in Popti'

1	2	3		4
Verb stem: Motion, Manner...	Aspect	3a Telic (Non-Deictic Non-Axial)	3b Axial and Median	Atelic (Deictic Non-Axial)
	- <i>pax</i> iterative - <i>kan</i> durative - <i>kanh</i> 'suddenly'	-(<i>V</i>) <i>k</i> 'in(to)' -(<i>V</i>) <i>l</i> 'out'	-(<i>V</i>) <i>h</i> 'up' -(<i>V</i>) <i>y</i> 'down' -(<i>V</i>) <i>k</i> 'across'	- <i>toj</i> 'away' - <i>tij</i> 'toward'

Example (9) illustrates one of the maximal combinations attested in Popti':

(9) **1+2+3+4** (Grinevald 2011:65)

x-Ø-s-muj- kan-ay-toj	heb'	naj	naj
ASP-him-he-bury-ASP- down-away	PL	CL/they	CL/him
'They buried him (once and for all down away)'			

This data has been thoroughly addressed already; the reader is referred to Grinevald (2011) or Craig (1993) for numerous illustrations of the template in (8).

2.3 Multiple verbal affixation in Homeric Greek

I collected the Homeric Greek data through the Perseus database (Crane 1997), from the full texts of *the Iliad* and *the Odyssey*. The total number of words for those texts (tokens) is 199 046; the total number of types is 8214 in *the Iliad* and 3259 in *the Odyssey*. The total number of Path-encoding multi-affixed verbs in both texts is 98 tokens for 47 types: multiple verbal affixation is thus a relatively rare phenomenon. However, it exhibits a striking stability and very specific rules and constraints of affixation. The table in (10) shows the template for Path-encoding multiple verbal affixation in Homeric Greek. These affixes are called "preverbs" in the specialized literature. All slots (1, 2, 3, 4) may be expressed together in one single construction. This template has three striking features. First, within non-axial Paths, it allows the combination of elements expressing Telicity (Slot 1) and what I call here "Configuration" (Slot 2), namely detachment, containment, circumvention, location on the side, above and under. Second, Slot 3 gathers both Axiality and Median, which is reminiscent of the situation observed in Popti' in Section 2.2. Finally, there is no mention of Deixis in table (10): it is difficult to evidence in the absence of speakers, and the question is therefore left unaddressed in this paper. This template is stable in the language. No "reordering phenomena" are attested, except from the case of two verb stems which contain a fossilized Slot 3 element, on top of which multiple preverbation occurred – cf.

Imbert (2008:236-240).

(10) Template for Path-encoding multiple verbal affixation in Homeric Greek

1	2	3	4
Telic (Non-Axial)	Configurational (Non-Axial)	Axial and Median	Verb Stem: Motion, Manner...
<i>eis-</i> ‘to’ <i>ek-</i> ‘out of’ <i>epí-</i> ‘at, onto’	<i>apó-</i> ‘off’ <i>en-</i> ‘in’ <i>pará-</i> ‘beside’ <i>perí-</i> ‘around’ <i>hupér-</i> ‘above’ <i>hupó-</i> ‘under’	<i>aná-</i> ‘up’ / ‘backward’ <i>katá-</i> ‘down’ <i>pró-</i> ‘forward’ <i>diá-</i> ‘through’	
Adpositionalization			

Examples (11a)-(11d) illustrate the template in table (10). More specifically, they show a difference in the morphosyntactic behavior of the preverbs, depending on their location in the combination (demonstrated in Imbert 2008, 2010). When the Ground is overtly expressed, it occurs most of the time to the left of the multi-affixed verb, and the leftmost affix of the combination systematically works as an adposition: namely, it morphosyntactically relates to the Ground-encoding syntactic argument.³ Conversely, the inner prefixes of the combination systematically work as adverbial particles. This explains the fact that syntactic constructions such as [multi-affixed verb + adposition + Ground], artificially illustrated in (11e), are not attested: there is already one element functioning as an adposition within the multi-affixed verb.

(11) After Imbert (2008, 2010)

a. **2+3+4** (Il. 13.87)

toì méga teîkhos
DEM:NOM.PL great:ACC wall:ACC
huper-kat-ebe:san homílo:i
above-down-walk:AOR.3PL throng:DAT

‘(The Trojans) who had got down over the great wall in their multitude’

³ The Ground is overt and occurs to the left of the multi-affixed verb in 63 of the 98 occurrences of multi-affixed verbs in both texts; it is overt and occurs to the right in only 8 occurrences – and, incidentally, the leftmost affix is always the one that works as an adposition introducing the Ground, no matter where the Ground is positioned with respect to the multi-affixed verb.

b. **1+3+4** (Od. 16.449)

hê mên ár' **eis-ana-bâs'**
REL:NOM LNK LNK **to-up-walk:AOR.3SG**
huperó:ïa sigalóenta
upper_chamber:ACC bright:ACC
'So she went up to her bright upper chamber'

c. **1+2+4** (Od. 12.306)

ex-ap-ébe:san etaïroi ne:ós
out-off-walk:AOR.3PL comrade:NOM.PL ship:GEN
'And my comrades went out from the ship'

d. **1+2+3+4** (Il. 2.267)

smôdix d' aimatóessa
swollen.bruise:NOM LNK blood.red:NOM
metaphrénou **ex-hup-an-éste:**
back:GEN **out-under-up-start:AOR.3SG**
'A bloody weal rose up on his back' (lit. 'rose **up out of** his back, from **under**')
under')

e. [Multiaffixed verb + Adposition + Ground] (not attested)

ex-ap-ébe:san etaïroi ***ex** ne:ós
out-off-walk:AOR.3PL comrade:NOM.PL ***out.of** ship:GEN
'And my comrades went out from the ship'

2.5 Complex predication in Mandarin Chinese

The analysis for Mandarin Chinese in this paper has been inspired by Lin (2010); the data presented in the latter has been checked and extended for this paper by language specialist Mariarosaria Gianninoto and native speakers Ming Xiu and Li Ling (all three from the University of Grenoble). The table in (12) shows the template for Path-encoding complex predicates in Mandarin Chinese, based on Lin (2010)⁴. All of these elements are still attested as verbs; however, some elements occurring in Slots 3 and 4 (*lai* 'come', *qu* 'go' and *dao* 'arrive') exhibit a process of grammaticalization that may be identified as adverbialization and adpositionalization. In Chinese, Telicity (Slot 3a) and Deixis (Slot 3b) cannot occur in one complex predicate. Finally, the combination 1+2+3+4 in one clause is not attested: Slot 1 (Manner) should be expressed in a different clause.

⁴ Lin (2010) proposes a terminology based on a notion of "scalar Motion Morpheme hierarchy" (SMMH). That terminology suggests an ascending "boundedness" of Path from the left to the right of the complex predicate. For the sake of coherence, the present paper applies the same terminology throughout its analyses; the reader is thus referred directly to Lin (2010) for the "SMMH" terminology and analysis.

The template in table (12) is well illustrated in Lin (2010); examples (13a)-(13f) complement Lin (2010) in showing a few extra combinations:

ke-hou	xiao-peng-you-men	dou	pao-dao
class-after	kids	all	run-arrive
cao-chang-shang	wan-sha		
playground-in	play		
'After class, the kids run to the playground'			

zhe-ge	yan-yuan	cong-ci	tui-dao
this-CLF	actor	since-then	recede-arrive
yin-mu-hou			
scenes-behind			
'This actor retreated behind the scenes since then'			

ni	hui-dao	wo	shen	bian
you	return-arrive	I	body	side
'You come back to me'				

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d. **1+2+4** (Xiu p.c)

shi-tou	gun-luo-dao	zhe-li
stone	roll-fall-arrive	here

‘The stone rolled down to here’

e. **1+3+4** (Ling p.c)

ta	cong	bei-jing	chu-fa	fei-qu-dao	shang-hai
he	from	Beijing	leave	fly-go-arrive	Shanghai

‘He flew to Shanghai from Beijing’

f. **2+3+4** (Ling p.c)

ru-guo	tui-hui-dao	2000	ni	xiang	dui
if	recede-return-arrive	2000	you	want	to
zi-ji	shuo	shen-me			
yourself	say	what			

‘If you return to (year) 2000, what do you want to say to yourself?’

The template in (12) has some counter-examples. Examples (14a)-(14b) illustrate “reordering” in the formal position of the verbs within their complex predicates (collected by Mariarosaria Gianninoto, from the Academia Sinica Balanced Corpus of Modern Chinese and the Chinese web). The elements occurring in Slots 3 and 4 in table (12) exhibit higher grammaticalization and may switch slots in certain contexts. While the combination *lai dao* ‘come arrive’ (3+4) has 373 occurrences in the corpus, the reverse combination *dao lai* ‘arrive come’ (4+3) is also attested, with 79 occurrences – however, such occurrences exhibit a bleached and/or more abstract meaning. The combination in table (12) *qu dao* ‘go arrive’ (3+4) only occurs 5 times in the corpus. The reverse combination *dao qu* ‘arrive go’ (4+3) does not occur in the corpus; however, several examples may be found on the Chinese web, with semantically bleached or altogether non spatial meanings, such as the meaning ‘interpret’ (14b).

(14) a. **4+3**

Hei	ye	yi ran	dao-lai
Black	night	already	arrive-come

‘Night has already fallen’

b. **4+3**

Meng	dao-qu	guowai	luyou	shi	shenme	yisi
Dream	arrive go	abroad	travel	be	which	meaning

‘How should one interpret dreaming of going abroad?’

3 Concluding remarks

This crosslinguistic exploration reveals striking similarities across languages that share very few formal features. Across Burmese, Arakanese, Popti', Homeric Greek and Mandarin Chinese multi-affixed verbs or monoclausal complex predicates encoding elaborate Paths, four observations can be made – knowing that the question of Deixis was left unaddressed here for Homeric Greek.

In terms of formal ordering, in all of these languages (with the exception of Homeric Greek), (a) Deixis is the concept that is expressed the farthest away from the expression of Manner of Motion; (b) the expression of axial Path occurs systematically closer to the expression of Manner of Motion than the expression of Deixis. In terms of combination constraints, (c) in Burmese and Popti', the expression of telic Path and the expression of axial Path cannot co-occur within the same construction; (d) in both Popti' and Homeric Greek, axial Path and Median cannot co-occur within the same construction.

Exploring underlying semantic and/or conceptual constraints and extending the selection of languages would shed light on these morpheme ordering issues, and in return participate in the discussions on Path, more specifically on the organization of the expression of Sub-Paths and Co-Paths in Motion events.

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Caroline Imbert

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Caroline Imbert
LIDILEM, University of Grenoble 3
UFR LLASIC
BP 25
38040 Grenoble Cedex 9

imbert.caroline@gmail.com