LEXICAL STRUCTURES CONCERNING MOVEMENT AND SPACE
IN SOME ASIAN LANGUAGES

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I

The main thesis of this paper is that Thai belongs to a class of languages which lexicalize the path of a movement in a monomorphemic verb, e.g. verbs like long 'to move down', k'ûn 'to move up' in long bandai 'to go down the staircase' or k'ûn bandai 'to go up the staircase' express a path with regard to the staircase. Such languages are rather common in East and in South East Asia. In earlier papers I have mainly dealt with Japanese and Korean as path languages. In the present paper I will concentrate on Thai, but I will do so in a typological perspective. I also want to show that Thai movement verbs incorporating a path carry important functions in the language. Typological facts of lexicalization, thus, are tied to other structural properties. The type as I said is rather common in South East Asia, although there is no survey of the languages concerned. E.g. also in Malay/Indonesian there is a fair amount of path incorporation in movement verbs. As the type can be found in languages of different genetic background and with different typological affiliations in other domains, one can study the interaction of lexicalization type in movement verbs with other typological features, such as presence/absence of morphological marked cases or presence/absence of prepositions or postpositions. One thing that all languages of the path type in East or South East Asia share is relational nouns with local interpretation like Thai nāa 'area in front', tāi 'area below'. At least in East Asia and South East Asia path incorporation in movement verbs seem to be in structural interaction with relational nouns.

In Thai we find sentences like
(1) weelaa f ön tok saidwën ūjk
'time' 'rain' 'fall' 'earthworm' 'move out'
càak din
'separate' 'soil'
'When rain falls, earthworms (will) come out of the soil'

(2) c'awpramoŋ nam ñ₃₃ ījk t'âlee
'fisherman' 'take' 'boat' 'move out' 'lake'
'Fishermen take the boat out of the lake'

In (1) ūjk corresponds to something which can be rendered by a verb in English whereas in (2) ūjk seems more readily translatable by a preposition. There are many similar cases. Consider

(3) rótfa ay ca t'ŋ⁰ŋ krutěep pruŋnii c'áaw
'train' 'will' 'arrive' 'Bangkok' 'tomorrow' 'morning'
The train will arrive in Bangkok tomorrow morning

(4) t'ānâŋ k'âas w₃ k t'k'ây t'ŋ⁰ŋ k'eeetđeën
'soldier' 'enemy' 'retreat' 'arrive' 'frontier'
The enemy's soldiers retreated to the border

(5) k'aw caak pay naan lëew
'he/she' 'move away' 'go' 'long (of time)' 'already'
'He left (=passed away) a long time ago'

(6) k'aw pay caak thî nîi naan lëew
'he/she' 'go' 'move away' 'place' 'this' 'long' 'already'
'He left here a long time ago'

t'ŋ and caak in (3) and (5) behave very much the way a verb is expected to behave in English whereas the very same t'ŋ and caak in (4) and (6) rather seem to behave like English prepositions.

Another usage of a movement verb in two different functions may be observed in the following cases: First, consider the uses of lën in (7) and (8).

(7) p'ën lën pay k'âanglën suŋ naŋsunw'im
'I' 'move down' 'go' 'area at the 'buy' 'newspaper'
'bottom of s.th.'
'I go downstairs to buy a newspaper'
(8) p'ôm kràdòot long (nay) mìnâam
   'I' 'jump' 'move down' 'in' 'river'
   'I jump (down) into the river'

long can be used as an independent verb and as such means
'move downwards' 'move towards a position lower than the
position before the movement starts'. As such it may be
used in a simple utterance like p'ôm long 'I go down' or
p'ôm cà long 'I will go down'. This is the use we also
encounter in (7), pay in (7) is used the same way as
càak in (6) which we said resembled the use of an
English preposition. Note that pay might be left out in
(7) and we would still have a grammatical, albeit less
idiomatic sentence.

(7a) p'ôm long k'âanglâng sàum nàngsûw p'im
   'I go down to buy a newspaper'

In (8) we see long joined to the verb kràdòot 'jump'.
Here long may be likened to the English use of a verbal
particle as in go down, jump down, run down and so on.
In (8) long cannot be dropped.

(8a) *p'ôm kràdòot nay mìnâam

would be ungrammatical whereas English I jump into the
river is perfectly acceptable. Similar uses can be
observed in the following pairs of sentences with the
path verbs k'ûn 'move up', k'âw 'move into' and k'âam
'move across'.

(9) k'âw k'ûn k'rûnëg bin
   '(s)he' 'move upwards' 'airplane'
   'She/he goes aboard an airplane'

(10) ñûu lûay k'ûn tònmmây
    'snake' 'crawl' 'move upwards' 'tree'
    'A snake crawls up a tree'

(11) k'âw k'âw baan
    '(s)he' 'move into' 'house'
    'He/she enters/goes into the house'

(12) nôk bin k'âw maa nay hûn
    'bird' 'fly' 'move into' 'come' 'in' 'room'
    'A bird flies into the room' (where the person
    observing the event is located, hence the use of
    maa 'come').
(13) p'óm k'āam sap'aan
'I' 'move across' 'bridge'
'I crossed a bridge'

(14) rótyon lêen k'āam sap'aan
'car' 'drive' 'move across' 'bridge'
'A car drove across the bridge'

Also ɓëk 'move out' which we observed in sentences (1) and (2) can be used conjoined to another verb as in

(15) karunaa ṭaw nāy na ɓëk maa
'please' 'take/bring' 'book' 'move out' 'come'
'Please bring the book' (taking it out of the thing in which it is contained when the sentence is being uttered).

just as k'āam 'move across' may be used in ways resembling an English preposition similar to sentences (2), (4) and (6) as in

(16) k'on t'ay cā saaŋ sap'aan
'human being' 'Thai' 'will' 'build' 'bridge'
k'āam mëk k'ōŋ
'more across' 'Mekong'

'The Thai people will build a bridge across the river Mekong'

This multiple use of verbs is not restricted to movement verbs expressing a path with regard to an object. It is found also with pay 'go', for instance:

(17) p'óm c'Šap pay dëen nay pàa
'I' 'like' 'go' 'walk' 'in' 'forest'
'I like going for a walk in the forest'

(18) rótfay pay kruŋ't'ēep ɓëk k weelaa hōk
'train' 'go' 'Bangkok' 'move out' 'time' 'six'
moɔŋ c'áaw
'hour' 'morning'

'The train for Bangkok will leave at six o'clock in the morning'

and with yet other verbs, e.g. pen 'be' (in the sense of expressing being a member of a class):
(19) suē pen sât düráay mák
'tiger' 'be' 'animal' 'wild' 'very'
The tiger is a very wild animal

(20) p'ôm tât kràdàat pen ruûp wôŋklóm
'I' 'cut' 'paper' 'be' 'picture' 'circle'
'I cut a circle out of a piece of paper'

If we had just one or two cases like the ones given one might settle for a solution which would consider the different uses homonymous. As there are quite a few - and many more can be given - we have to account for it in a systematic fashion. Some Thai verbs allow for quite a flexible range of uses which, when compared with English word classes, correspond to main verbs, particles accompanying verbs in complex expressions and prepositions.

Marybeth Clark and Amara Prasithrathsint consider them cases of "synchronic lexical derivation". In their view the use of the lexemes not as a primary verb of a proposition should be classified as a "preposition" and they propose that these prepositions should be described as zero-derivations from the lexemes used as primary verbs of propositions. They also point out that there are related parallel cases of the same lexeme being used as a primary verb and as a preposition in other East Asian and South East Asian languages, e.g. Khmer, Vietnamese, Hmong and Mandarin. There also is according to Clark and Prasithrathsint a further derivational process which derives adverbs from verbs (Clark/Prasithrathsint 1985).

Others have distinguished between primary and secondary verbs (Haas 1964, XXII) or between verbs and co-verbs and have considered constructions as given in examples (2), (4), (6), (8), (10), (12), (14), (16), (18), (20) as co-verb constructions or as serial verb constructions (Kuhn 1990 on Vietnamese). We will later see that there are yet other uses open to some Thai verbs. Most of the examples discussed so far show verbs expressing a movement - that is all except for pen - and most of the motion verbs mentioned so far are verbs of motion expressing the path a movement takes.

I will not go into a discussion of how the sentences (2), (4) and (6) and so on should be analysed syntactically, e.g. whether one should assume subordination of a second proposition (with a second verb) or zero-derived prepositions or particles,
Leonard Talmay has proposed a typology of lexicalization of motion verbs. Talmay gives a model of descriptions of motion events. He distinguishes between something being in motion (vs. its being localized), the figure which is moving, the ground with regard to which it is moving, the path that the figure takes in motion with respect to the ground, the manner of the motion, and, finally, whether the description of the motion event contains an indication of its cause or not. E.g. in sentence (3) the figure is rőťay 'train', the ground is krútťěep 'Bangkok', the fact of movement and the path taken are both contained in t'ũn 'arrive'. Manner and cause are not expressed in (3). Languages incorporate into the meaning of a motion verb other semantic factors besides motion itself. Talmay's typology maintains that languages show a preference for incorporating either the manner of motion into a monomorphic motion verb, or the path of the motion with respect to the ground or the figure which is moving.¹

Talmay describes Atsugewi, an Amerindian language in California as a typical language which incorporates the figure which is moving. That is, a monomorphic verb in a description of a motion event will contain an indication of a quality of the figure in motion, e.g. its shape or its solidness or the like. In recent work on the typology of motion verbs mainly path and manner have been considered. Christoph Schwarze was able to show that Italian has about an equal amount of monomorphic motion verbs which incorporate manner (Schwarze 1985). I was able to show that Japanese and Korean also belong to the path incorporating type of language (Wienold 1987). All of the languages which have a large amount of verbs lexicalizing the path of the motion, now, seem to have at least some amount of verbs which incorporate the manner of motion. That is, they have verbs for 'fly', 'swim', 'crawl', 'dance', 'walk' and the like. German, on the other hand, a language typically incorporating the manner of motion, practically has no motion verb incorporating the path at all. English does have quite a few, but most of them - expect for rise and leave - are of Romance origin. The
Italian and the German case, then, may indicate that manner and path may play different roles in the typology of lexicalization of motion verbs. Manner may be the exclusive element which is incorporated into a monomorphemic motion verb - as in the German case -, and may be incorporated into a restricted group of motion verbs as in the case of Japanese and Korean which are typical path-incorporating languages, and it may be lexicalized to such an amount that the typology may seem to get blurred - as in Italian. On the other hand, in studies done up to now no path-incorporating language has been sighted which does not have at least a modest amount of manner-incorporating verbs. As the number of languages examined is quite small yet, however, languages like this might easily come to light soon. Be this as it may, the point I wish to argue is: Manner and path in Talmy's typology are of different status. It is not simply the case that a language will either preferably incorporate manner into a motion verb or path - or figure which I will not consider any further in this study -, I would rather expect that the reasons for a language to have manner incorporating verbs or path incorporating verbs are independent of each other (cf. also Wienold in print).

This discussion has taken us away from the Thai verbs referred to in the beginning. But it was necessary to prepare the ground for further discussion of them. Let us first establish where Thai stands with regard to Talmy's typology. As indicated in the beginning Thai is rich in verbs of motion expressing a path.

(22)

k'āw 'to move into s.th.'
kūn 'to move out of s.th.'
lōot 'to move through (under) s.th.'
lēey 'to move past s.th.'
t'ālu 'to move through s.th.' (possibly breaking it)
k'āam 'to move across/over s.th.'
t'ūq 'to move towards, up to s.th.'
càak 'to move away from s.th.'
būk 'to move forward'

(restricted to certain uses like soldiers or tanks advance, cf. also būkrūk 'to invade, to trespass'). In other situations one has to
use expressions like pay/maa k'âaynâa 'to
go/come forward'
t'ëy
'to move backwards'
(t'ëy can freely alternate with pay/maa
k'âaynâa 'go/come backwards, i.e., one may
say p'öm t'ëy t'ëy pràtuu 'I move backwards
the door' whereas p'öm bûk t'ëy pràtuu is
not acceptable.)
klàp
'to move back to an earlier position',
'to return (home)'
hân
'to turn backwards'
taam
'to move along s.th.'
yâay
'to move from one place to another'
yôn
'to move against the current'

Monomorphematicity is also a true criterion for a
basically still monosyllabic language like Thai.
Monosyllabicity does not imply at all that there will
be mostly monomorphematic lexicalizations in Thai: On
the contrary, there are numerous instances of complex
expressions made up of more than one monosyllabic
morphemes having monomorphematic expressions
corresponding to them in English, e.g. Thai hua rô'
engl. laugh, Thai yôkthoot - engl. forgive. The finding,
that we have monomorphematic lexicalizations of path in
Thai movement verbs, then, cannot simply be explained by
the monosyllabic structure of Thai.

Thai resembles very closely Korean and Japanese with
regard to concepts lexicalized in motion verbs. There is
however one difference. Many Thai path verbs can be used
as intransitive verbs only. The subject of the verb
refers to the figure in motion. There is only a limited
list of path verbs (e.g. pò k, klàp, k'un, t'ëy hân,
yâay) (cf. also Clark/Prasithrathsint 1985, 45f.).
Korean and Japanese, in general, have corresponding
transitive verbs with the figure as object. The
following is a sample list: 2
Thai does not seem to have a very productive process which would supplement the intransitive path verbs by corresponding transitive ones. The way commonly used in Thai in this respect seems to be independent transitive lexicalizations. A sample of such transitive path verbs looks like this

<table>
<thead>
<tr>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>'upwards'</td>
<td>agaru</td>
<td>ageru</td>
<td>orūda</td>
</tr>
<tr>
<td>'downwards'</td>
<td>oriru</td>
<td>orosu</td>
<td>naerida</td>
</tr>
<tr>
<td>'outwards'</td>
<td>deru</td>
<td>dasu</td>
<td>nada</td>
</tr>
<tr>
<td>'inwards'</td>
<td>hairu</td>
<td>ireru</td>
<td>tūlda</td>
</tr>
<tr>
<td>'around'</td>
<td>mawaru</td>
<td>mawasu</td>
<td>tolda</td>
</tr>
<tr>
<td>'through'</td>
<td>tooru</td>
<td>toosu</td>
<td>chinada</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'across'</td>
<td>wataru</td>
<td>watasu</td>
<td>kōnnōda</td>
</tr>
<tr>
<td>'across'</td>
<td>koeru/kosu</td>
<td>koesasu</td>
<td>nōmta</td>
</tr>
</tbody>
</table>

(impediment)

I give only examples for one of the verbs listed: luang

(25) p'ōm luang linc'āk hāa k'ōn
'I' 'reach into' 'drawer' 'seek for' 'thing'
'I searched for something in the drawer'

(26) p'ōm t'ūuk luang kràpāw kām kē
'I' 'suffer' 'reach into' 'pocket' 'trousers'
'I suffered (someone) reached into (my) trousers' 'pocket'
'Something has been stolen out of my trousers' 'pocket'

As I maintained earlier, that Bahasa Indonesia also has movement verbs in incorporating the path, I add the
following list here:

(27)
masuk  'to move into'
keluar  'to move out of'
naik   'to move up'
turun  'to move down'
kembali/balik 'to move back to an earlier position'
pulang 'to move back home'
mundur 'to move backwards'
maju  'to move forward'
sampai 'to move up to'
tiba   'to move towards, to arrive'
lalu   'to move through'
melintasi 'to move across'
pindah 'to move from ... to'

Let us take it an established fact, then, that Thai with Japanese and Korean (and Malay/Indonesian) belongs with the languages with a large number of path verbs. We should also take note of the fact that Thai just as Korean and Japanese has manner verbs, but not very many, although may be a few more than those two languages. Consider the following list.

(28)
gaan 'to walk'
$input$ 'to run'
bin   'to fly'
leeen 'to drive' (can only be used of vehicles and is intransitive)
kràddoot 'to jump'
luy   'to wade'
k'laan 'to crawl'
tài   'to crawl, climb' (of small animals)
luiy  'to crawl' (without having legs to use, that is of snakes, plants and the like)
waay 'to swim' (commonly in the connection waay naam)
k'lop 'to gallop'
$\ddot{\text{u}}$an 'to creep, to sneak, to prowl'
kaaw  'to stride, to strut, to stalk'
sée   'to sway'
ram   'to dance'
pihn  'to climb'
klíng 'to roll'
This list is slightly longer than the corresponding lists would be for Japanese and Korean which do not seem to have monomorphemic manner motion verbs like *luy, k'ip*, *yùh*, *kaaw*, *see* (cf. Wienold in print). On the other hand Thai does not have the abundance of manner verbs like English *stride, strut, stalk, stroll, stampede* or German *sausen, rasen, hasten* etc., which indicates a strongly articulated manner language.

III

In earlier discussions of path verbs in Japanese and Korean I suggested that the presence of a rich amount of path verbs in these two languages is related to the presence of relator nouns. These are not a separate class of words but are nouns which may take the same array of case particles like any other noun. Most of them however are somewhat restricted in use as they will occur either as second noun in a structure of the type *N-Relator-N* or will from the context be easily understood as representing the second position of such a structure with the first one not actually filled in but readily to be supplied from either linguistic or situational context. What I have called 'Relator' is Japanese *no*, Korean *ui(e)* which among its functions includes the expression of possession. These nouns, if related to a verb syntactically, express this relationship by a case particle. That is they fill one of the arguments of the frame of arguments open to a specific verb. Prepositions like English and German prepositions, on the other hand may open an additional argument position for a verb next to the ones expressible without prepositions. Relational nouns, then, only semantically resemble prepositions, and only partially, so, as they cannot express paths as prepositions/postpositons can.

Now there are further restrictions in Japanese and Korean. Quite a few spatial relations between the motion of a figure and the ground which in German or English can be expressed by prepositions do not have any relational noun available, thus, there are no relational nouns for 'through' 'across' 'over' (in the case of movement), 'along' 'against' 'up to' 'at'. In such cases we always find verbs which specify the motion's relationship to some ground, that is: the path.
Thai does have a few words which may best be classified as prepositions. These items occur only immediately in front of a noun phrase, they cannot be used as main verbs or words conjoined to other verbs without a noun phrase following. Neither can they be used as a noun. That is I will analyse as Prep NP only expressions which cannot be analysed as NP NP or V NP (contrary to, e.g. Noss 1964, 146ff.). This group includes:

(29) bon 'on'
    nay 'in'
    râp 'around'
    kâp '(jointly) with', 'together' (also one way of saying 'and')
    këg 'to' (for the recipient of an act, only with certain verbs, very restricted)

Besides these prepositions there are nouns which specify spatial relationships with regard to a ground and which may be considered relational nouns (cfl. also Kuhn 1989). They include:

(30) t'îi 'place' = 'at'
    k'âang 'side' = 'beside, next to'
    t'ai 'space below, south' = 'under'
    nûng 'space above, north' = 'above'
    t'âang 'way, area' = 'in the area of'
    nâa 'face' = 'in front of'
    lâng 'back' = 'behind'

k'âang can also be combined with nâa, lâng, bon, nay and itself to specify places independent of a noun phrase.

(31) yoon boon pay k'âang nâa 'throw' 'ball' 'go' 'place in front'
    'Throw the ball forwards'

(32) yoon boon pay k'âang lâng 'Throw the ball backwards'

For Thai, as for Japanese and Korean, I suggest that there is a structural relationship between a rich specification of motion verbs lexicalizing the path of a motion and the limitations of prepositions and relational nouns. Also for Bahasa Indonesia a list of relator nouns—considered secondary prepositions by some grammarians — can be supplied. Thai does share quite a few other structural features with Korean and Japanese but the typological differences are equally noteworthy: SVO word order vs. SOV word order, isolating (or
polysynthetic) type vs. agglutinative type, strong tendency to monosyllabicity in Thai (except for compounds, obliterated compounds, loan words ... ) vs. polysyllabicity, no inflectional or derivational morphology vs. rich inflectional and derivational morphology, tone language vs. non-tone language, to mention just a few. That is the strong similarity of lexicalization pattern and structural corollaries in Korean and Japanese and in Thai give strong support to the hypothesis that this is a typological fact for which a structural explanation may be expected. Further support for this contention comes from quite a different area of the world, that is from Central America, a language called Tzotzil. In Tzotzil, again, we find no prepositions and postpositions and a dearth of relational nouns much bigger than in Thai or Korean or Japanese and, again, path meanings lexicalized in monomorphemic motion verbs (Aissen 1987).

Thai verb verb combinations as illustrated in section 1 can be paralleled to some extent by verb verb combinations in Japanese and Korean. Unfortunately limitations of space do not permit me to go into this structural parallel.
1 There may be languages which do not incorporate other semantic information besides motion in movement verbs, languages, which would just have verbs meaning 'to move' and deictic movement verbs like go and come. Yupik may be such a language.

2 A rather complete list can be found in Wienold/Dehnhardt/Kim/Yoshida 1991.

3 This list is preliminary. It also needs discussion of the prefix me and the suffix i occurring in some cases. On these affixes cf. Dardjowidjojo 1978.


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