

# **Expression of Path in Caused motion and Visual Emanation**

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to be uploaded at

<http://www.lit.kobe-u.ac.jp/gakkai.html>

Matsumoto, Yo, and Dan I. Slobin.

A bibliography of linguistic expressions for motion events.

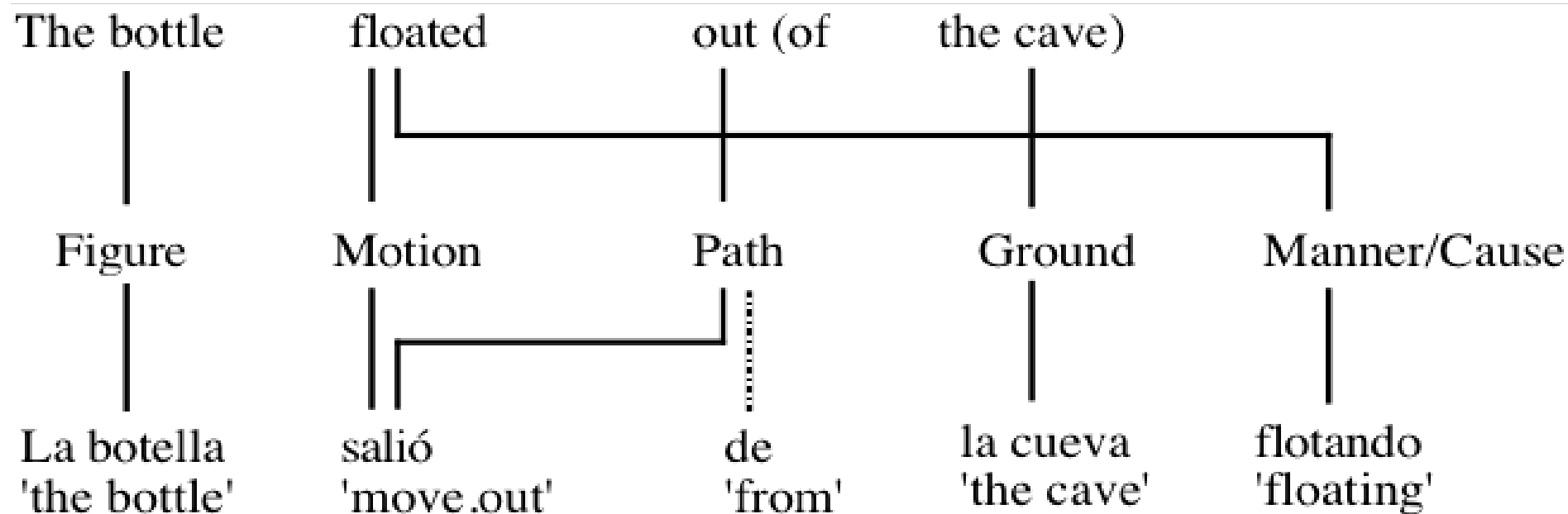
<http://www.lit.kobe-u.ac.jp/~yomatsum/motionbiblio.html>

# 1. Typology of Motion Events

## 1.1 Lexicalization patterns

Talmy 1985

English



Spanish

## 1.2 Event integration

Talmy 1991

**satellite-framed language:** languages that characteristically map the core schema (e.g., path) onto the satellite (i.e., an element “sister to” the verb; e.g., particles in English)

**verb-framed language:** languages that characteristically map the core schema onto the verb.

problems:

- The notion 'satellite' is too restricted: path can be encoded by nonsisters of a verb, e.g., prepositions, case markers
- The notion 'verb' is intended not as a grammatical category of a verb but as the head of a clause  
cf. Chinese directional complements (second verb in a V-V compound)

## 1.3 Head- vs nonhead-framed languages Matsumoto 2004

**nonhead-framed language:** languages that characteristically map the core schema (e.g., path) onto the nonhead of a clause (e.g., particles, affixes, prepositions, nominal case endings, subordinate verbs)

**head-framed language:** languages that characteristically map the core schema onto the head of a clause.

The head: the element that determines the argument structure (esp. the subject of a clause)

## **1.4 Problems with the two-way distinction?**

Zlatev & Yangklang 2001, Essegbey & Ameka 2001, Slobin 2004

**equipollently-framed languages** (Slobin 2004)

Thai, Ewe, Jaminjung, Klamath

(2) **Thai** serial verb construction  
kháw (wîng) khâw bâan  
s/he run enter house  
"S/he ran into the house."

- no formal marking of subordination
- omissibility of manner verb

"no evidence for the subordinate status of any single verb"  
cf. initial verb as the (semantic) head vs. multiple headed (e.g.,  
Filbeck 1975 vs. Muansuwan 2000 in Thai)

## **2. Descriptions of caused motion**

### **2.1 Caused motion and typology**

Descriptions of caused motion events by causative motion verbs can be more clearly divided into the two-way distinction.

Causative verbs of motion

(3) Susan threw the ball *out* the window.

What are NOT considered:

(4) a. noncausative caused motion sentences

The napkin blew off the table.

b. pseudo-caused motion sentences:

(subject moves with the object)

Taro ga hon o gakkoo ni mot-te it-ta.

Taro Nom book Acc school Goal have-TE go-Pst

"Taro brought the book to school  
(went to school, having the book)."

**Head-framed languages:** Path is encoded by **causative verbs of motion** (the head of a clause);  
<--the head determines the subject, and the head must have the causer as its subject

**Nonhead-framed languages:** Path does **not** have to be coded by causative verbs; forms identical with those used with motion verbs can be used

## Nonhead-framed language: English

- (5) Mary ran *into* the room.
- (6) a. Bill rolled the ball *down* the slope.  
causation + motion + manner
- b. Bill tossed a ball *into* the box.  
causation + means + motion
- c. Susan lifted the box *up*.  
causation + motion + path

## Head-framed language: Japanese

(7) a. Motion verbs encoding path information

Hanako wa sono heya kara **de**-ta.

Hanako Top the room from go.out-Pst

"Hanako went out of the room."

b. Causative verbs encoding path information

Boku wa booru o hako kara **dashi**-ta

I Top ball Acc box from make.go.out-Pst

"I put the ball in the box."

(8) *agaru* 'go up'  
*sagaru* 'go down'  
*ochiru* 'fall'  
*oriru* 'go down'  
*hairu* 'go in'  
*deru* 'go out'  
*hanareru* 'go away'  
*chikazuku* 'approach'  
*tooru* 'go through'  
*wataru* 'go across'

*koeru* 'go over'  
*sugiru* 'go past'

*ageru* 'cause to go up'  
*sageru* 'cause to go down'  
*otosu* 'cause to fall'  
*orosu* 'cause to go down'  
*ireru* 'cause to go in'  
*dasu* 'cause to go out'  
*hanasu* 'cause to go away'  
*chikazukeru* 'cause to approach'  
*toosu* 'pierce'  
*watasu* 'send to the other side,  
give'

(9) compound verbs

a. manner + path

Hanako wa sono ie ni kake-**kon**-da

Hanako Top that house Goal run-go.in-Pst

"Hanako ran into that house."

b. means/causation + path/causation

Boku wa booru o hako ni nage-**ire**-ta

I Top ball Acc box Goal throw-make.go.in-Pst

"I threw a ball into the box."

(10)

nage-ire(-ru)	(throw-make.go.in)	‘throw in’
nage-age(-ru)	(throw-make.go.up)	‘throw high up’
keri-age(-ru)	(kick-make.go.up)	‘kick up’
keri-ire(-ru)	(kick-make.go.in)	‘kick in’
ke(ri)-otos(-u)	(kick-make.go.down)	‘kick down’
uchi-otos(-u)	(hit-make.go.down)	‘shoot down’
uchi-age(-ru)	(hit-make.go.up)	‘hit high up’

Right-headedness of Japanese compound verbs (Matsumoto 1996, 1998)

(11) yogore o arai-**otosu**  
stain Acc wash-drop 'wash out stains'

## **2.2 Caused Motion Descriptions in some compounding and serialing languages**

Mongolian (Altaic; Street 1962, Binnick 1979)

Mangghuer (Altaic; Slater )

Chinese (Sino-Tibetan; Hashimoto 1971, Li & Thompson 1981, Zou 1994, Arakawa 1996, Lamarre 2002, 2003, 2004)

Thai (Tai-Kadai; Filbeck 1975, Thepkanjana 1986, Muansuwan 2000, Zlatev & Yangklang 2002, Kessakul 2005)

Fongbe (Niger-Congo; Lefebvre & Brousseau 2002)

## Mongolian: converbal construction

(12) a. manner + path

güjg-<sup>ˇ</sup>eed gar-ax

run-Con go.out

'run out'

b. means/causation + path/causation

av-aad gar-g-ax

take-Con go.out-Caus

"take out"

## **Chinese:** directional compounds

(13) a. manner + path

Lisi pǎo-chū le

Lisi run-go.out Asp

"Lisi ran out."

(14) means/causation + path; V1 is the head

a. nonsplit compound

tā rēng-chū le yi-ge píngzi

s/he throw-exit Asp one-Cl bottle

“S/he threw out a bottle”

b. split compound

tā rēng le yi-ge píngzi jiu chitang-li

s/he throw Asp one-Cl bottle enter pond-inside

S/he threw a bottle into the pond.

Note: most path verbs like *chu*, *jiu*, etc., do not have causative use.

## Thai serial verb construction

(15) manner + path

kháw wîŋ khâw bâan

s/he run enter house

"S/he ran into the house."

(16) means/causation + path ; V1 is the head

khwaaŋ lûukbɔn khâw bâan

throw ball enter house

"throw a ball into the house"

Note:

Most path verbs like *phàan*, *long*, etc. do not have causative use  
Causative verbs like *khwaang* are not omissible

## Fongbe

(17) a. manner + path

Kòkú fíyá byò xò mɛ̀

Koku rush enter room in

"Koku rushed into the room."

b. means/caustion + path; V1 is the head

Kòkú nyì yòvózền ò byò xò mɛ̀

Koku throw orange Def enter room in

"Koku threw the orange into the room."

## (18) Summary

Means of causation    Path

Japanese	Causative	<u>Causative</u>	Head-framed
Mongolian	Causative	<u>Causative</u>	Head-framed
Chinese	<u>Causative</u>	Non-causative	Nonead-framed
Thai	<u>Causative</u>	Non-causative	Nonead-framed
Fongbe	<u>Causative</u>	Non-causative	Nonead-framed

The pattern like Chinese/Thai/Fongbe is possible when  
1) non-initial verb has been grammaticalized into  
(subjectless) adpositions/adverbs  
or 2) subject switch is allowed

**(19) Subject sharing parameter**

- Subjects of the two verbs must be shared in Japanese  
(Matsumoto 1998) and in Mongolian (Binnick 1979: 81)
- Subjects of the two verbs do not have to be shared in Chinese  
and in some serial verb languages (Crowley 1987, Durie  
1988)

## 2.4. Dexis

### 2.4.1. Deictic specification in motion descriptions

very common Manner + Path + Deixis pattern

**Japanese** -TE concatenation

(20) Taro ga hashit-te de-te it-ta.  
Taro Nom run-TE go.out-TE go-Pst

"He ran out (away from the speaker.)"

**Mongolian** converbal construction

(21) Ter güjg-<sup>˘</sup>eed gar-aad yav-laa.  
s/he run-Con go.out-Con go-Wit

"S/he ran out (away from the speaker.)"

## Mangghuer

- (22) a.   qi     mali     gher-ji                   ri  
          2.Sg   quickly   go.out-Imprf                come  
          "You come out quickly."   (p. 138)
- b.   mula kong   khari-ji           ri-jiang  
          small person   return-Imprf   come-Obj.Prf  
          "the young man returned."
- (23)   Tingsa gan   a   sangba-ji   gher-ji           ri-ba  
          then   3.Sg   also   climb-Imprf   go.out-Imprf   come-SPrf  
          "Then she also (started) climbing up."   (p. 142)

## Chinese

- (24) Tā pǎo-chū-lái le.  
s/he run-go.out-come Asp  
“S/he ran out (toward the speaker).”

## Thai

- (25) kháw wîŋ ʔòɔk pay  
s/he run exit go  
"S/he ran out (away from the speaker)."

## **Fongbe**

(26) Kòkú fíyá yì àxì mɛ̀

p.424

Koku rush go market in  
"Koku rushed into the room."

## 2.4.2. Caused motion events with deictic specification

(27) Japanese cf. Korean (Choi & Bowerman 1991)

Nonexistence of the lexical causative form of *ik-u* ‘go’ and *ku-ru* ‘come’

Boku wa booru o sochira ni hoori-dashi-ta

I Top ball Acc that.way hurl-go.out.Caus-pst

"I threw out the ball that way. the speaker)."

(28) Mangghuer

Ting ge aguer gan puzighui=nang  
that do daughter 3.Sg deep.fried.dough.stick=ReflPoss

ge kerla-ji xi-gha-jiang  
Sg.Indef throw-Imp go-Caus-ObjPerf

“Then (one) daughter she threw one of her own deep fried  
dough sticks (to him).”

(29) Chinese

Tā rēng-chū-lái le yige píngzi. (Zou 1994:445)  
s/he throw-exit-come Asp one Cl bottle.

“He threw out a bottle (toward the speaker).”

(30) Thai

kháw khwaaŋ lûukbɔn ʔòɔk pay  
s/he throw ball exit go

"S/he threw out a ball (away from the speaker)."

(31) Fongbe

Kòkú nyì yòvózêñ ò yì xò mè p.246

Koku throw orange Def go room in

"Koku threw the orange into the room (away from the speaker)."

(32)

	Means of causation	Path	Deixis
Japanese	Causative	Causative	*
Mangghuer	Causative	Causative	Causative
Chinese	Causative	Non-causative	Non-causative
Thai	Causative	Non-causative	Non-causative
Fongbe	Causative	Non-causative	Non-causative

(33) Subtypes of head-frame in Caused Motion Descriptions

Japanese	nondeictic only
Mongolian	deicitc and nondeictic

### 2.4.3 Jaminjung (Non-Pama Nyungan) Schultze-Berndt 2000

only 26 inflected verbs; much of the lexical content is expressed by a “co-verb”

deictic path is encoded by the head verb, but specific paths do not

- (34) a. -ijga ‘GO’, -ruma ‘COME’, -unga ‘LEAVE’,  
-arrga ‘APPROACH’, -wardagarra ‘FOLLOW’,  
-irdba ‘FALL’,  
b. -uga ‘TAKE’, -anthama ‘BRING’, -arra ‘PUT’,  
-wardgiya ‘THROW’, -mili ‘HANDLE’

- (35) a. manner coverb + deictic inflected verb  
 warnda-g    **walnginy**    ga-ngga    p. 254  
 grass-Loc    walk    3sg-GO.Prs  
 ‘it walks in the grass’
- b. path coverb + deictic inflected verb  
**jag**    yirr-ijga-ny    binka-bina    p. 469  
 go.down 1pl.excl-GO-Pst    river-All  
 “We went down to the river”
- c. manner and path coverbs + deictic inflected verb  
**buru**    **yugung**    ga-ram    p. 255  
 return    run    3sg-COME.Prs  
 ‘she comes running back’

(36) identical path coverb in motion and caused motion descriptions

a. tharrey=biya:, Gandama-yurlu motika,  
there=now Gandama-Poss2 car

jarlig **wurlurlu** burr-irda-m p. 234  
child enter.thru.opening 3sg-FALL-Pst  
'there now, Gandama's car, the children are getting in'

b. **wurlurlu** ba-rra beg-gibany mindag  
enter.thru.opening Imp-PUT bag-Loc Imp.bring  
1du.incl.Obl

'put them in a bag and bring them for you and me' p. 240

(37) Subtypes of head-framing in Caused Motion Descriptions

Mongolian	deictic and nondeictic
Japanese	nondeictic only
Jaminjung	deictic only

## 2.5 Klamath (Barker, Delancey)

traditional analysis: prefix – stem – suffix

bipartite stem analysis (Delancey)

stem = “lexical prefix” + “locative-directive suffix”

lexical prefix: instrumental prefix and motion prefixes

representing manner

locative-directive suffix: represents Path

llscoqyigall: /scoqi.lga/ "(a ripe berry) falls off its stem" = {scoqy} 'fall from a stem (as a ripe berry) + {elg} 'down, to the ground' (Barker 1964: 131)

llsliwigall: /sliwlga/ "throw down a cloth" = {sle} 'to act upon a cloth-like obj' + {elg} "down, to the ground' p. 117

## 2.5. Consistency within a language

Do languages have the same framing pattern for motion verbs and causative motion verbs?

--> There is a tendency for a head-framed language to shift to a nonhead-frame pattern for causative verbs. Some head-framed languages do not have a full range of causative path verbs

e.g., transitive path verbs (e.g., *koe(-ru)* 'go over') cannot be causativized in Japanese

## **2.6. Conclusions of this section**

- The two-way typology still makes sense in the expressions using causative verbs of motion
- Parameterization is needed to account for difference in deictic specification

### **3. Visual Emanation**

#### **3.1 Fictive Motion of Vision (Talmy 1996, 2000)**

1) **Visual emanation** along the line of vision

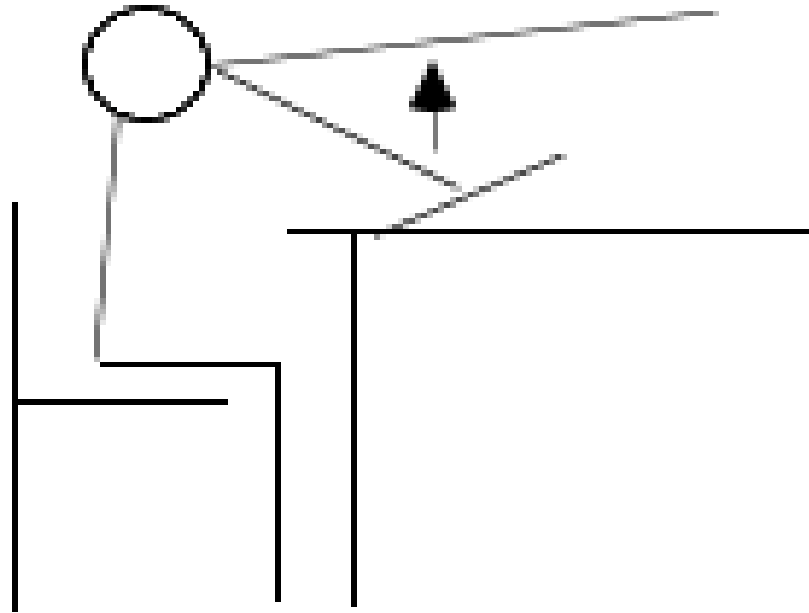
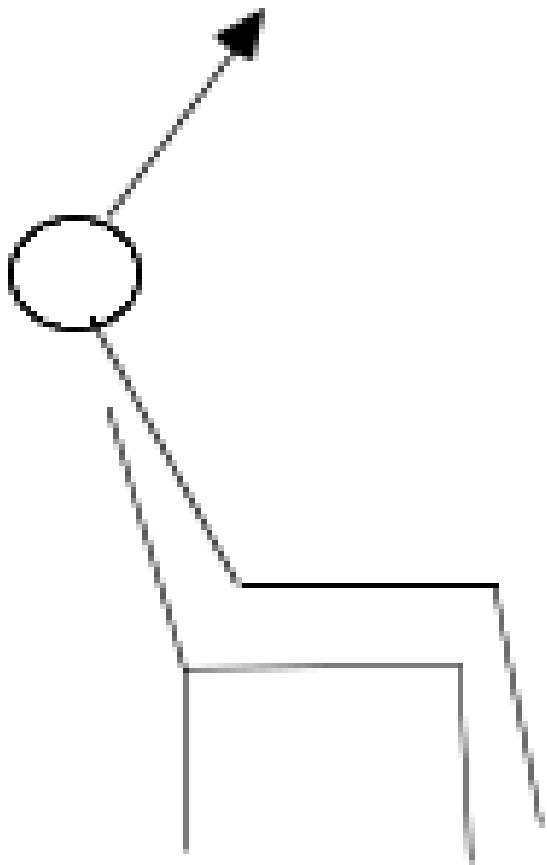
2) **Lateral movement** of the line of vision

(1) a. He looked through the door.

b. He peeped into the hole.

(2) a. He slowly looked around.

b. He looked from one face to another.



- (3) a. He looked up.
  - b. He looked up from his book.
  - c. He looked up at the sky (from the window).
- (4) He lifted his eyes to the sky (from his book).

## 2. Motion typology and visual emanation (Slobin in press)

### 2.1 Satellite-framed (or Nonhead-framed) languages

(5) a. He {looked/peeped/stared/gazed/glanced/squinted/leered} at ....

b. He looked {up/down/into the hole/across the valley/through the hole/past the house/toward the mountain/...}

English verbs like *look* are exactly like motion verbs

(Gruber 1967)

## **2.2 Verb-framed (or head-framed) languages for visual emanation?**

### **2.2.1 Lexicalization of emanation path in verbs of vision**

'look up', 'look down', 'look across' lexicalized only(?) in some languages (e.g., Dyirbal (Dixon), Paez (Grinevald p.c.), Toba (Klein 1981))

## 2.2.2 Typological shift

Verb-framed (or head-framed) languages tend to use satellite-framed (or nonhead-framed) language pattern for visual emanation

### Spanish

- (6) a. Miré al cielo  
looked.1sg to.the sky  
"I looked (up) at the sky."
- b. Miré arriba, al cielo  
looked.1sg up to.the sky

(7) a. Miré            dentro del            agujero  
looked.1sg inside of.the hole  
"I looked into the hole."

b. Miré            por            el            agujero  
looked.1sg through/via            the            hole

## Hindi

(8) Maine uupar (aakaash-kii oor) dekhaa.  
I-Erg up sky-Gen direction looked.  
"I looked up (at the sky)."

(9) a. Raam-nee kamree-mee jhaa.nkaa.  
Raam-Erg room-Loc peep-Sg.Msc.Pst  
"Raam peeped into the room." (Narasimhan 1998: 54)

b. Raam-nee khi.Dkii-see baahar jhaa.nkaa.  
Raam-Erg window-Abl outside peep-Sg.Msc.Pst  
"Raam peeped out from the window."  
(Narasimhan 1998: 54)

## Japanese

(10) mado no            soto o            mi-ta.  
window Gen    outside Acc look-Pst  
"look out the window/look at the outside of the window"

mado-goshi ni            soto o            mi-ta.  
window-go.over    outside Acc    look-Pst  
"look out through the window"

## 2.3 Using motion verbs for visual emanation: Is it possible?

(11) Particles/prepositions differ from verbs in the necessity of *syntactic* expression of Figure

a.

up < >

Figure Ground

b.

into <OBJ>

|

Figure Ground

c.

go.up <SUBJ, OBL>

|

|

Figure Ground

d.

make.go.up <SUBJ, OBJ, OBL>

|

|

|

Causer Figure Ground

The verb-framed (head-framed) nature of verb-framed (head-framed) languages tends to be lost in the description of fictive motion of emanation.

This is partly because of the grammatical difference between adposition/particles and verbs; the latter has an elaborated set of grammatical functions, while the former does not, allowing flexibility in describing emanation.

## Deverbalized(?) path verbs

### (12) **Thai** (Takahashi 2000: 141-142)

a. kháw mɔɔŋ khâam pay ʔiik faŋ nuŋ  
s/he look cross go further bank one  
"S/he looked across to the other bank."

b. kháw mɔɔŋ phàn kracòk sǎy khâw pay  
s/he look pass glass transparent enter go  
"She looked in through the transparent glass."

(13) **Loniu** (Oceanic; Hammel 1993)

a serializing language with an agreement marker

a. utEo ko'oluweni wow kime peleNan  
1pc-ex Ir-ns-move.with.ropes 2s Ir.3s.come on.top  
"we will pull **you** up (out of water)"

b. su'u ma kelele ma kime ce'erekow  
3d Int Ir.ns.look Int Ir-3s-come che'erekow

su'u lé'é Nesumwan  
3d R.ns.see smoke

“when they two looked toward Che'erekow, they saw  
smoke.”

## 2.4 Using causative verbs of motion

(14) Korean

wuli nun tongkwul sok ul *tuly*-eta **po**-ass-ta.

we Top cave inside Acc put.in-Trf look-Pst-Dc

"We looked into the cave." (Sohn 1999: 380)

(15) put.in	<SUBJ,	OBJ,	OBLloc>	look	<SUBJ,	OBJ>
	causer	figure	ground		<b>perceiver</b>	<b>perceived</b>
		_____				
		∅	∅			

(16) compound verbs with transferentive *eta*-complementizer

chey-eta pota (lift-Trf see) 'look up'

nayly-eta pota (lower-Trf see) 'look down'

nay-(e)ta pota (take.out-Trf see) 'look out'

tuly-eta pota (put.in-Trf see) 'look in'

tol-ata pota (turn-Trf see) 'look back'

(17) Japanese

boku wa sora o **mi-age**-ta

I Top sky Acc look-lift-Pst

"I looked up at the sky."

(18)    look <SUBJ, OBJ>                    lift <SUBJ, OBJ, OBLgo>

	<b>perceiver</b>	<b>perceived</b>		causer	figure	ground
	_____				∅	∅

(19) mi-ageru	(look-lift)	'look up'
mi-orosu	(look-drop)	'look down'
mi-yaru	(look-give)	'look toward'
mi-watasu	(look-make.cross)	'look over'
nozoki-komu	(peep-make.enter)	'look into'

cf. mi-mawasu (look-make.go.around) 'look around' (lateral movement)

divergence from the verb-framed language pattern.

V2 is not the head (i.e., does NOT determine the argument structure of the clause). In this sense, Path is not encoded by the head (main verb) of the clause

# **Conclusion**

## **Parameterization of motion typology**

- 1. motion vs caused motion vs visual emanation**
- 2. deictic vs nondeictic path**

**+ parameterization on verb compounding/seriarization**

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