

Adults' expression of voluntary and caused motion events in Chinese and in English

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Satellite-framed and Verb-framed languages (Talmy)

Main verb root

Other

S-framed: **MANNER/CAUSE**

PATH

V-framed: **PATH/CAUSE**

MANNER/CAUSE

English: Satellite-framed

- a. The man **ran** **across** the street.
- b. Hoppy **rolls** the ball **across** the street.

French: Verb-framed

- a. Le garçon **traverse** la rue **en courant**
(‘The boy crosses the street running.’)
- b. Popi **traverse** la rue **en faisant rouler** le ballon.
(‘Hoppy crosses the street making roll the ball.’)

Chinese in motion event typology (1)

Expressing motion events in Chinese:

Resultative Verb Compound (RVC=V1+V2)

[V1 - V2]

Niao fei - chu le dong.

bird fly - exit/out of -ASP nest

‘The bird flew out of the nest.’

- V1 fei ‘fly’: Manner verb
- **Conflicting views regarding the second constituent:**
chu ‘exit’/ ‘out of’: Verb or Particle?

Chinese in motion event typology (2)

Talmy: Chinese is satellite-framed like English

- The second constituent in RVC is a satellite.
 - a. Like English verb particles, they form a closed class set with limited members.

e.g. shang ‘up/ascend’, xia ‘down/descend’, jin ‘into/enter’, chu ‘out of/exit’, guo ‘across/cross’, etc.
 - b. It encodes the same semantic content as in English verb particles (i.e. Path).

English: The bird flies **out of** the nest.
Chinese: Niao fei - **chu** le dong.

Chinese in motion event typology (3)

Slobin: Chinese is “equipollently-framed”

- The second constituent in RVC is better treated as a verb: it can function as a predicate independently (vs. English particles)

e.g. Niao fei-chu le dong. ('The bird flew out of the nest.')

Niao chu le dong.

bird exit -ASP nest

('The bird came out of the nest.')

Compare: *The bird out of the nest.

- “equipollent”: Manner and Path are expressed by equivalent grammatical forms (e.g. constituent verbs in Chinese RVC).

Chinese in motion event typology (4)

- **Problem in deciding between the two views:**
no verb inflections or any other morphological devices are available in Chinese to differentiate a verb from its supporting elements.
- **Present study:** goes beyond the part of speech of a given linguistic element while examining the selection and distribution of spatial information over the entire clause and across utterances in discourse.

Is Chinese satellite-framed or equipollently-framed?

The experiment

- 12 adult native speakers of English;
12 adult native speakers of Chinese.
- Two spatial production tasks in the form of cartoons:
 - a. **Voluntary motion** (VM) task
 - b. **Caused motion** (CM) task;

Voluntary motion cartoons

- VM: A figure moves in a particular manner (e.g. **crawling**, **swimming**) along different paths: **up**, **down** and **across**.





Caused motion cartoons

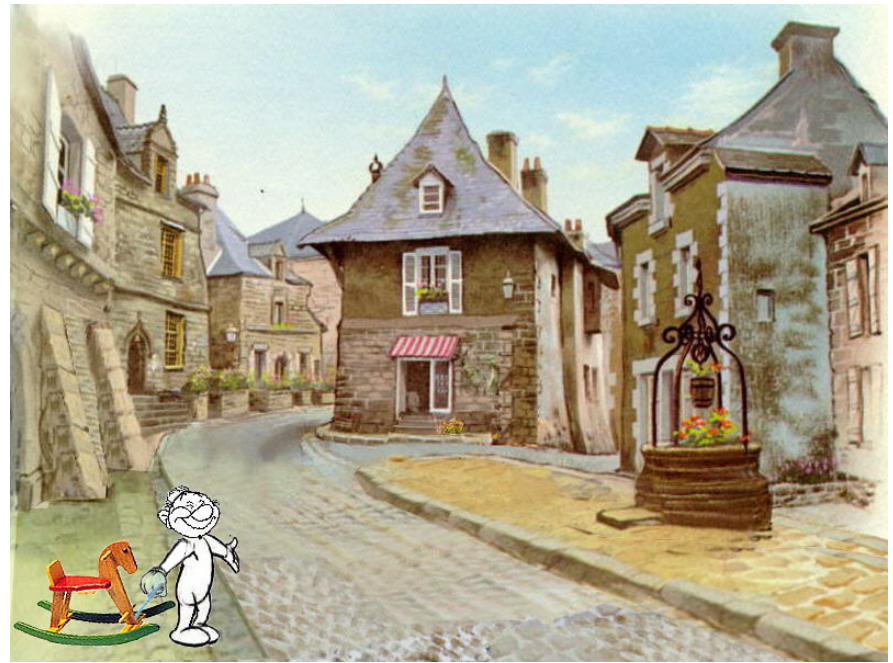
- CM: An agent, by (**pulling** or **pushing**) causes a figure to move in a certain manner (**rolling** or **sliding**) along different paths: **up**, **down**, **into** and **across**.



pull-roll-into



pull-slide-across



push-roll-up



push-slide-down



Information components in VM and CM

Voluntary motion (VM):

- PATH: Agent's path of motion → up/down/across
- MANNER: Agent's manner of motion → crawl/swim/run...

Caused motion (CM):

- O-PATH: Object's path of motion (same as A-path)
→ up / down / into / across
- A-PATH: Agent's path of motion (same as O-path)
→ up / down / into / across

Different kinds of MANNER information:

- A: Agent's action causing O's motion → push/pull
- AM: Agent's manner of motion → walk (all items)
- OM: Object's manner of motion → roll/slide

VM and CM: the analyses (1)

➤ **information selection** (i.e. Path, Cause and Manner);

➤ **information locus** (i.e. position – MAIN VERB or OTHER devices) in which a given motion component characteristically occurs;

Other devices (OTH): prepositions, particles, gerunds (leave swimming), nouns (runner, swimmer), subordinated clauses (go up the hill pushing the ball), etc.

Note: Path constituent in Chinese RVC:

first coded as a verb;

then re-coded as a satellite.

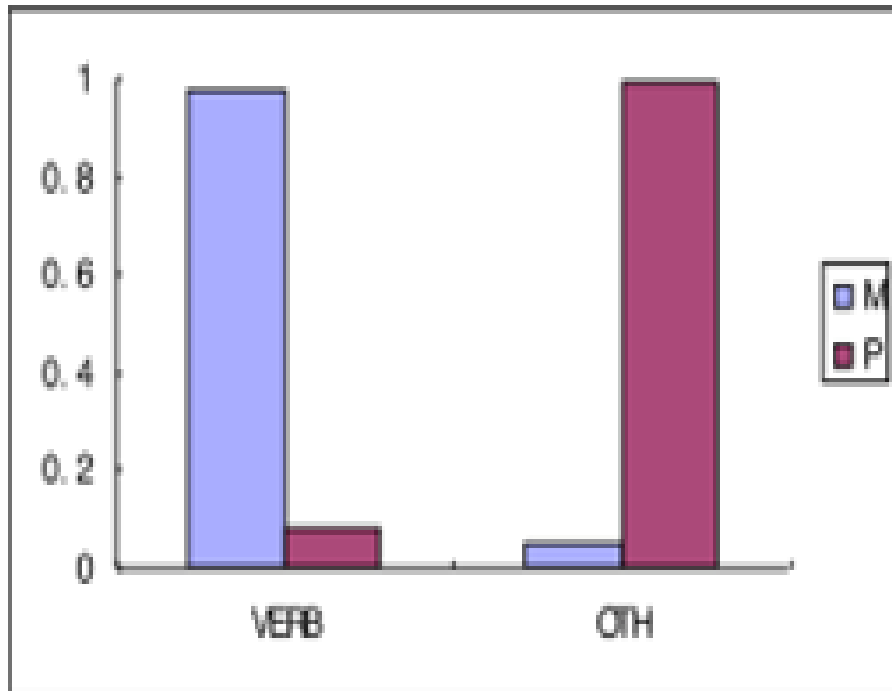
Voluntary motion

M+P responses are very frequent in both languages:

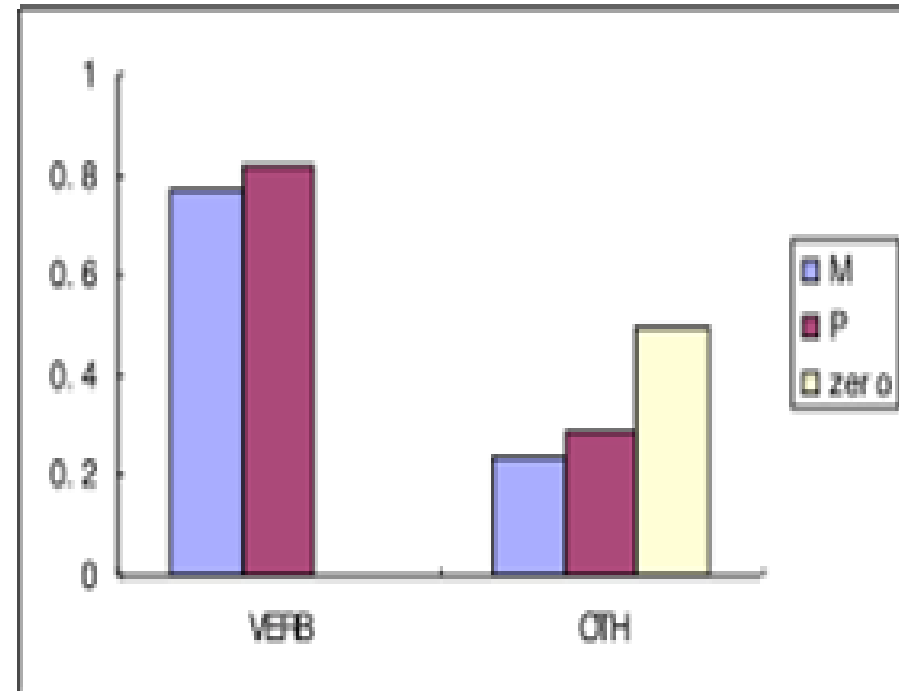
a. A man **jogging across** the screen **over** some grass.

b. Yi ge xiaohuozhi **pao-guo** le malu.

(‘A young man ran across the street.’)



English



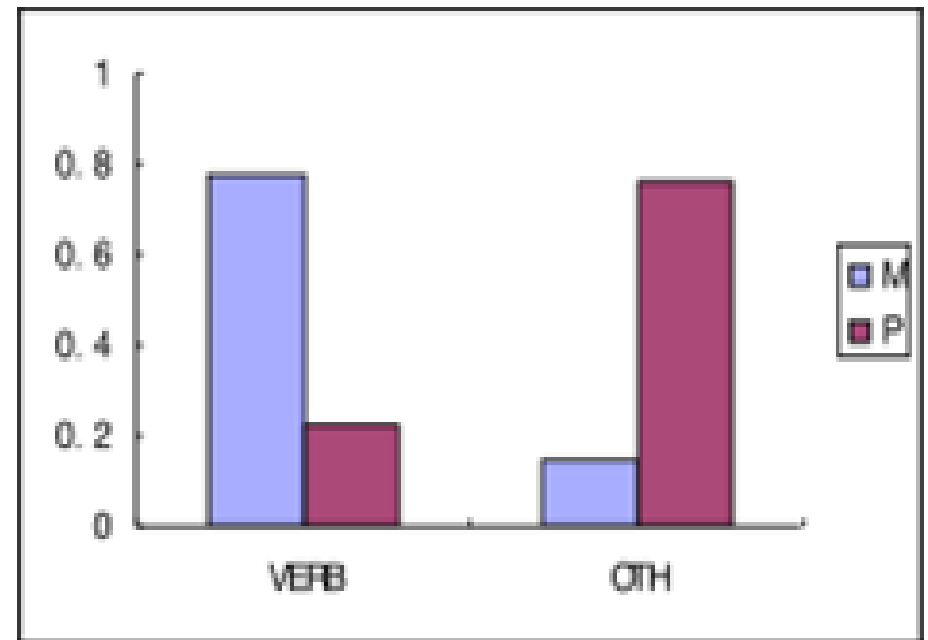
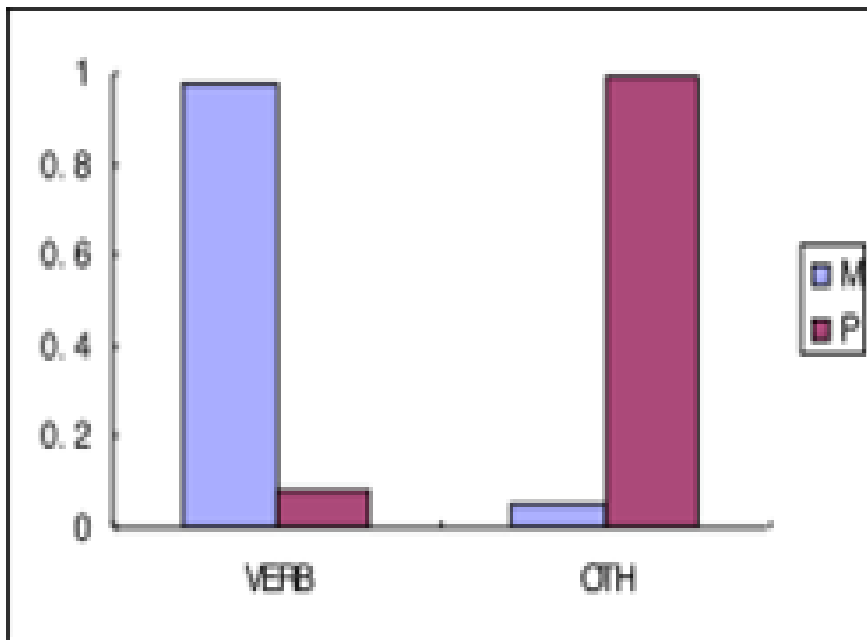
Chinese

Voluntary motion: Results of the re-coding

- **Similarity** between Chinese and English significantly increases under the same “satellital” coding:

English

Chinese

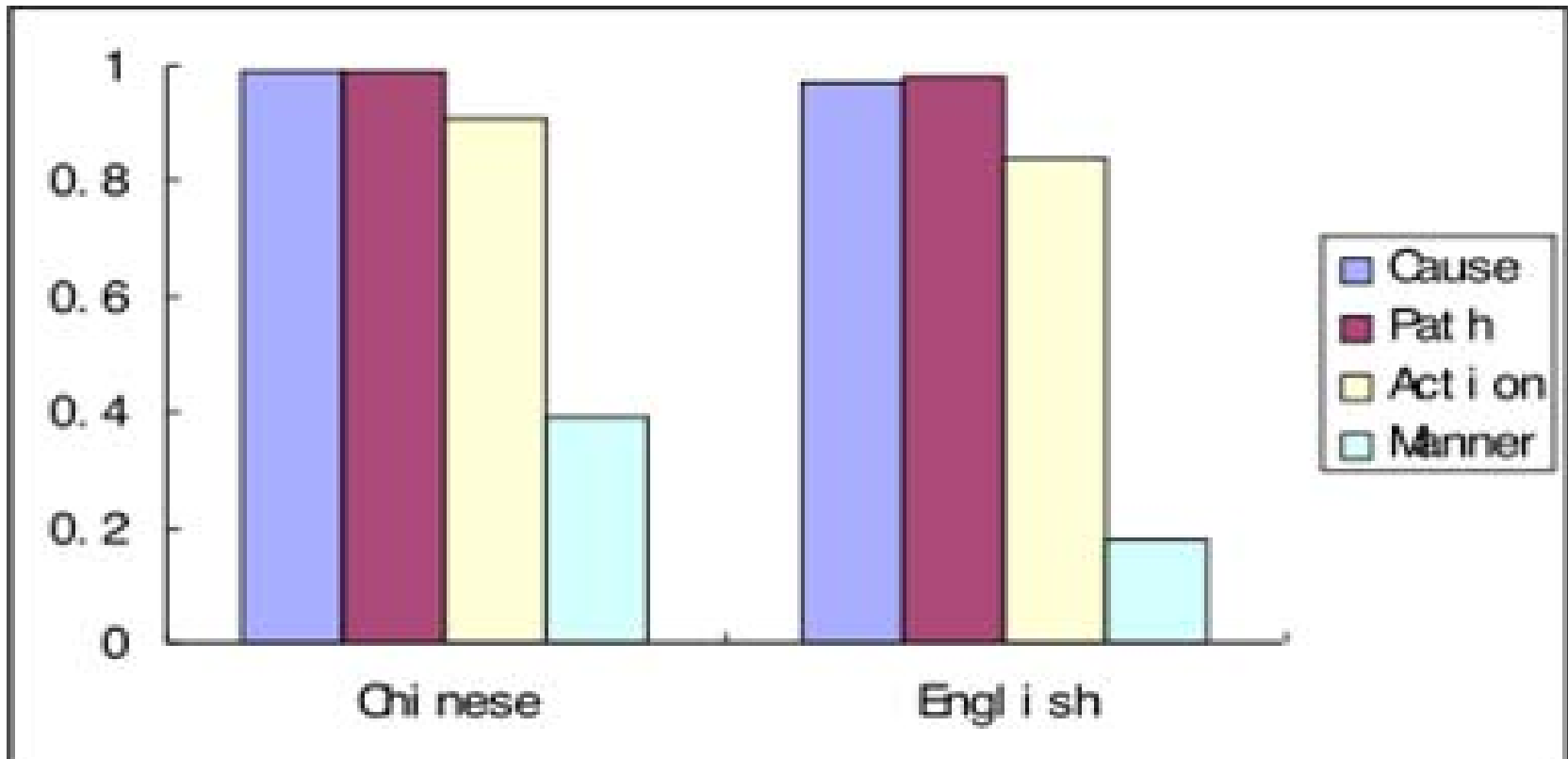


Voluntary Motion: Conclusion

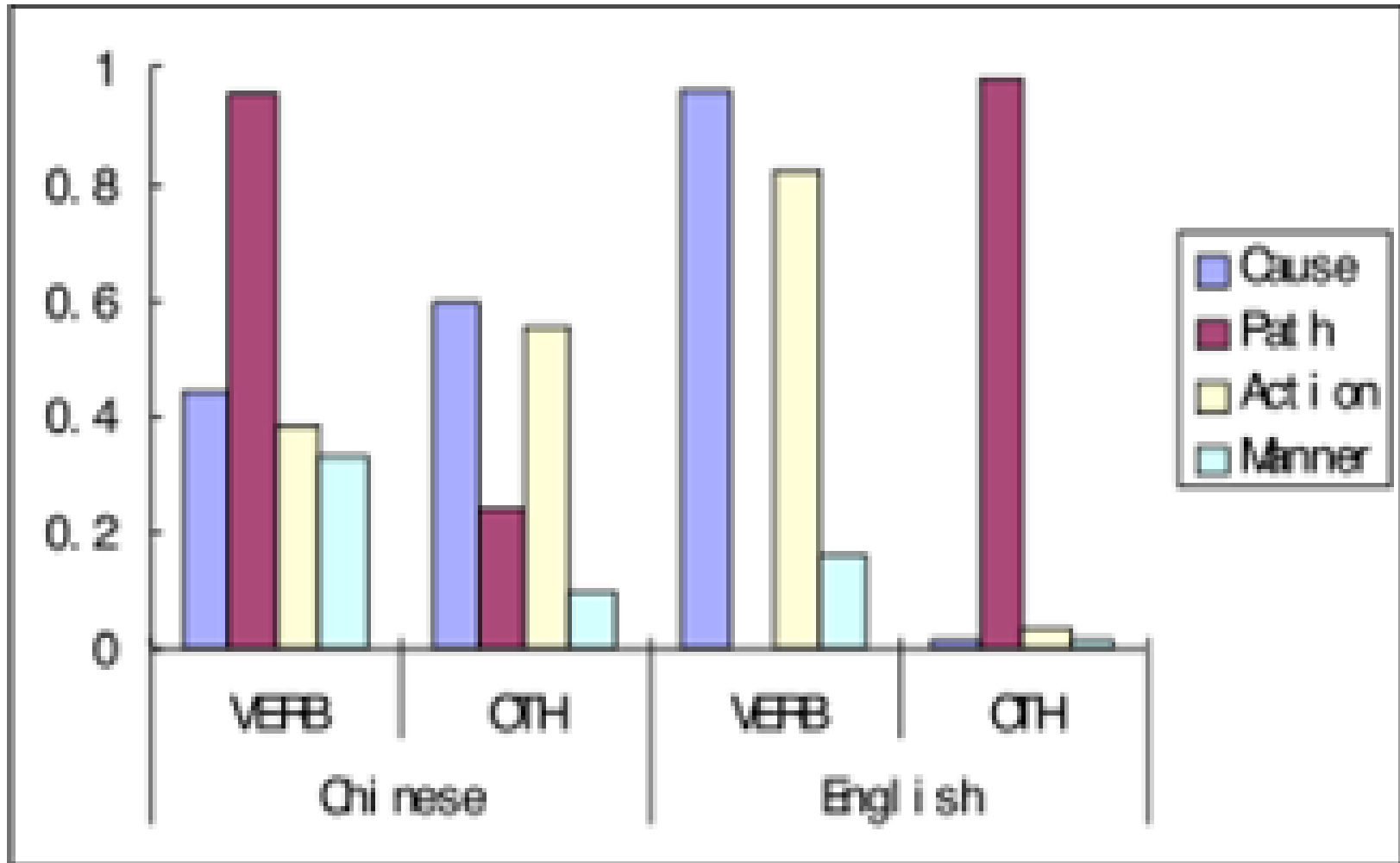
When analysing Voluntary Motion situations only, and when coding the second constituent in the RVC as a satellite, Chinese indeed looks exactly like the typical satellite-framed language English. But what if we look at another Motion situation?

CM: information selection

- a language-independent preference for the expression of **Cause = Path > Agent's action (push / pull) > Manner (walk / roll / slide)**



CM: information locus



Chinese: information locus (1)

Chinese: expressing C and A equally frequently between VERB and OTH

- a. **BA construction** (stressing “affectedness” of objects): 42%
- b. **ZHE construction** (similar to English complex sentences of the type while V-ing): 58%

Chinese: information locus (2)

- BA construction (42%)

[C+A+P]

Agent BA Object RVC
Ground

Hoppy ba pram pull-cross street
(‘Hoppy pulled the pram across the street.’)

Information in VERB: C+A+P

Information in OTHER devices: 0

Chinese: info locus and density (3)

- ZHE construction (58%)

[subordinated clause]				/	[main clause]	
Agent	<u>V1</u>	ZHE	Object	/	<u>V2</u>	Ground
Hoppy	pull	zhe	pram		(walk-cross)	street
					cross	

- V2=RVC ('walk-cross')

'Hoppy walked across the street pushing a pram.'

[AM+P] [C+A]

- V2=simplex verb ('cross')

'Hoppy crossed the street pushing a pram.'

[P] [C+A]

Chinese: ZHE vs. BA construction

ZHE construction (58%):

- Allows to express additional information component: AM 'walking' (i.e. V2=RVC)
- Expresses more sub motion events than BA (i.e. V2=simplex verb)

e.g. 'Hoppy went up the hill rolling the ball.'

--- Hoppy rolled the ball;

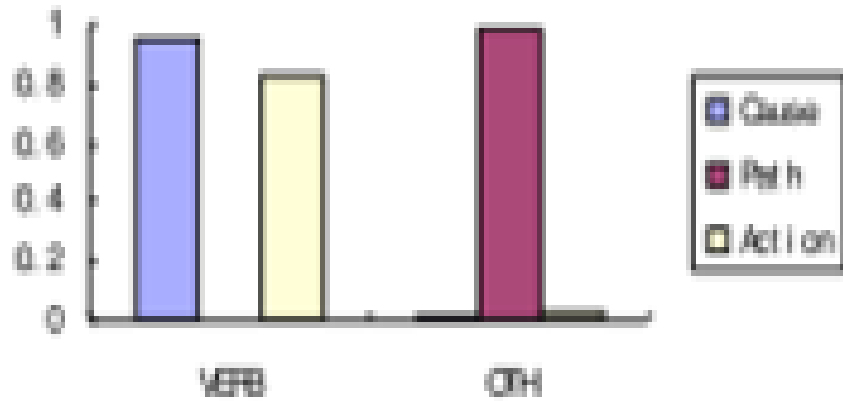
--- The ball went up the hill;

--- Hoppy went up the hill.

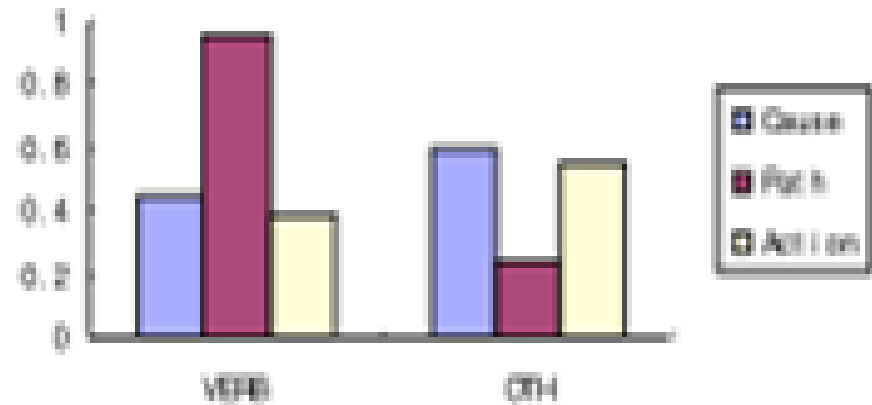
(compare: 'Hoppy BA the ball rolled up the hill.')

CM: information distribution

English



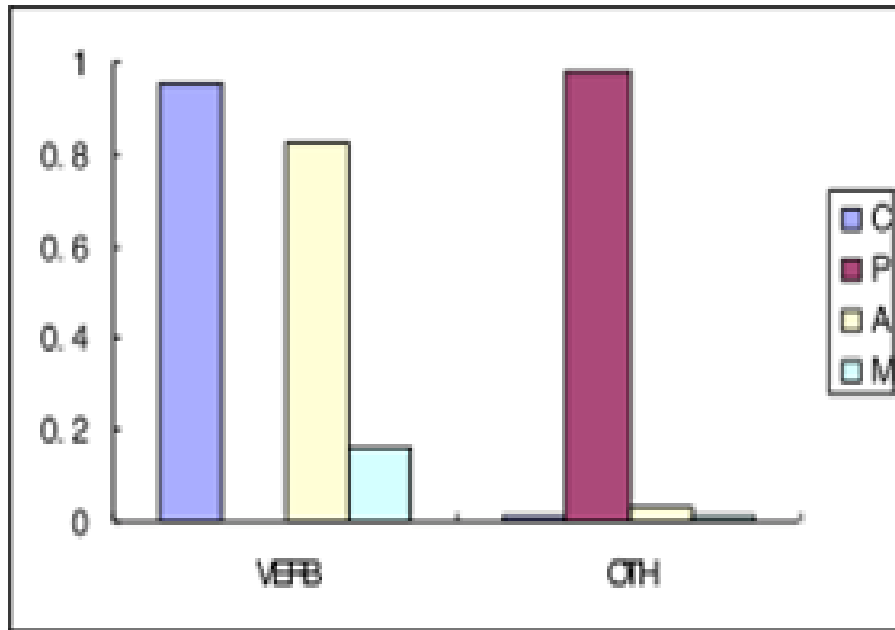
Chinese



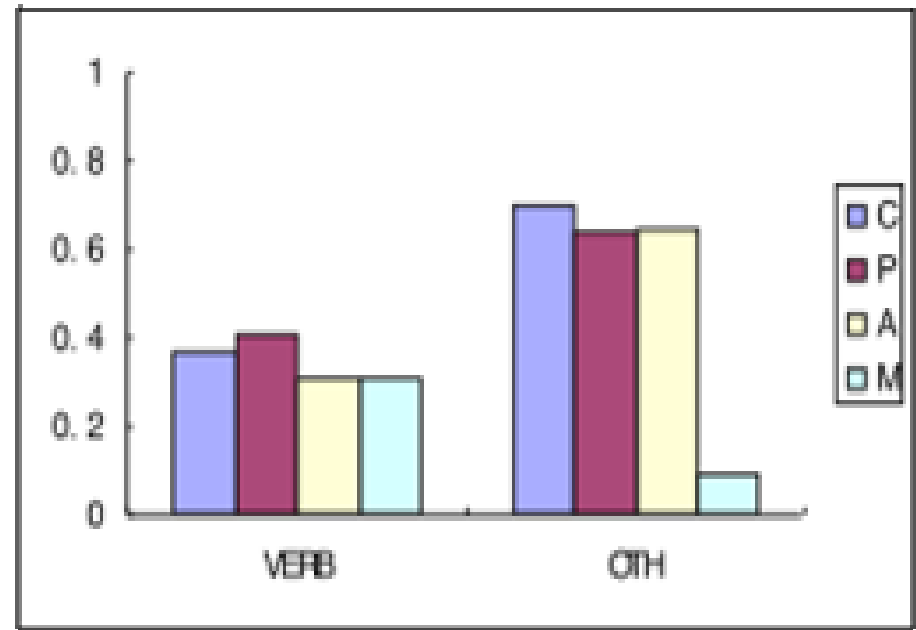
Re-coding Chinese data “satellitally” (1)

- still striking differences between the two languages:

English

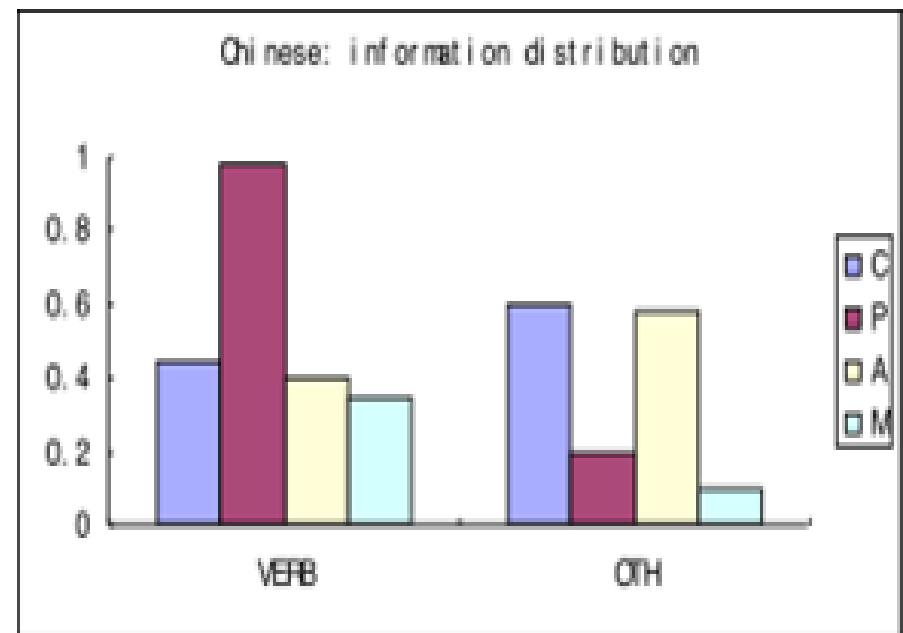
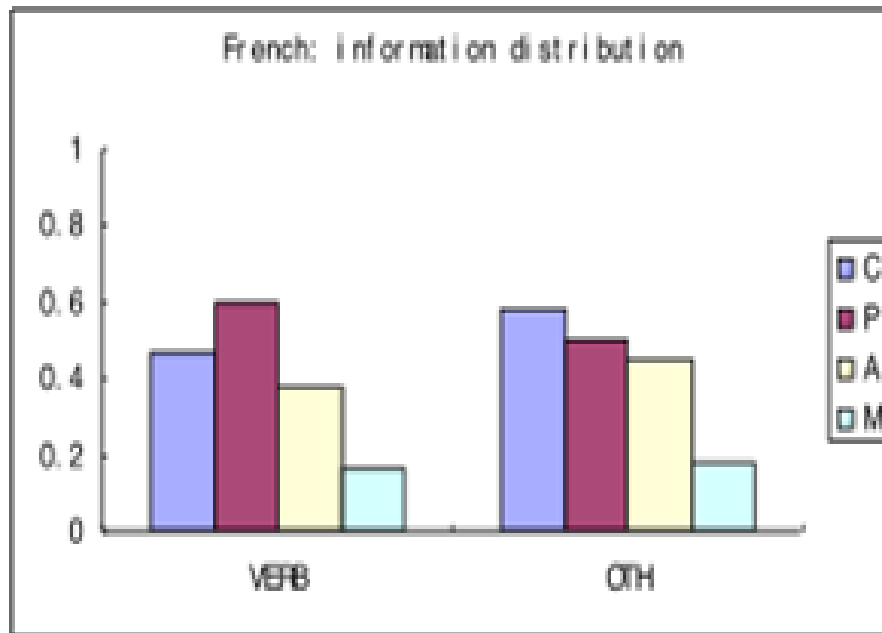


Chinese



Re-coding Chinese data “satellitally” (2)

- Re-coding affects Path component only;
- Utterances with a single Path verb are not affected; (e.g. ‘Hoppy ascended the hill pushing a ball.’);
- Chinese shows systematic verb-framing properties (similar to French).



Chinese: an “equipollent” language

- Chinese exhibits both “satellite-framing” (VM) and “verb-framing” (CM) features, depending on specific motion contexts;
- The best way to describe Chinese in motion event typology seems to require placing it mid-way along a verb-framed/satellite-framed continuum, that is, in an “equipollent” position.

Thank You!