

# *Non-actual motion in Swedish, French and Thai*

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# Outline

- What is non-actual motion?
- Non-actual motion sentences vs. non-actual motion experiences
- Experiential motivations
- Elicitation experiment
- Conclusions

# Related...

- *virtual motion* (Talmy 1983)
  - *fictive motion* (Talmy 2000; Matlock 2004)
  - *subjective motion* (Langacker 1987; Matsumoto 1996)
  - *implied motion* (Barsalou 2009)
  - *abstract motion* (Matlock 2010)
- (1)      a. The mountain range goes all the way from Canada to Mexico.  
          b. The mountain range goes all the way from Mexico to Canada.

## ... but different (1): Sentences

- (2) { { { {
- a. The highway crawls through the city. (Matlock 2004: 232)
  - b. An ugly scar extends from his elbow to his wrist.  
(Langacker 2001: 9)
  - c. The milk is about to go sour. (Langacker 1990: 155)
  - d. The enemy can see us from where they are positioned.  
(Talmy 2000: 115)
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## ... but different (2): Experiences

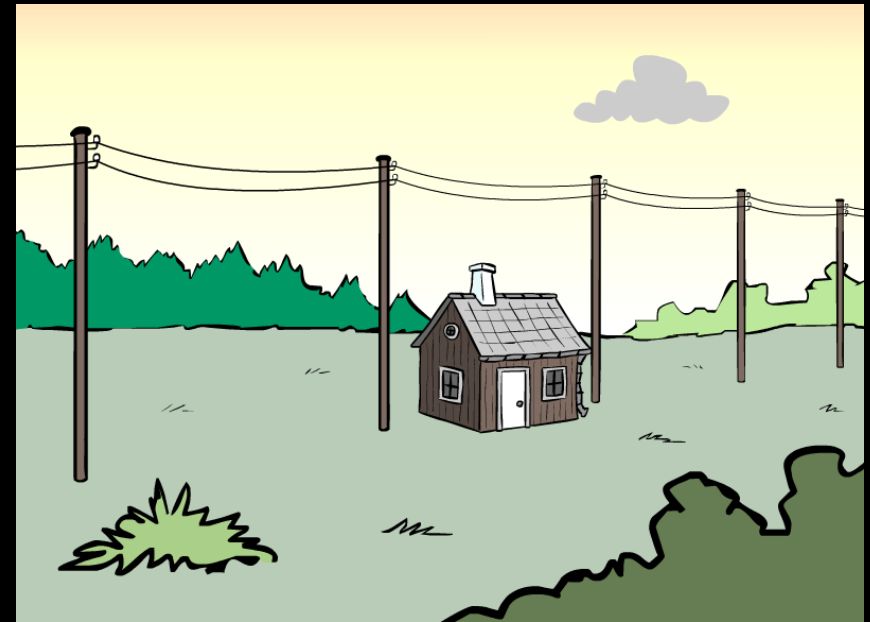
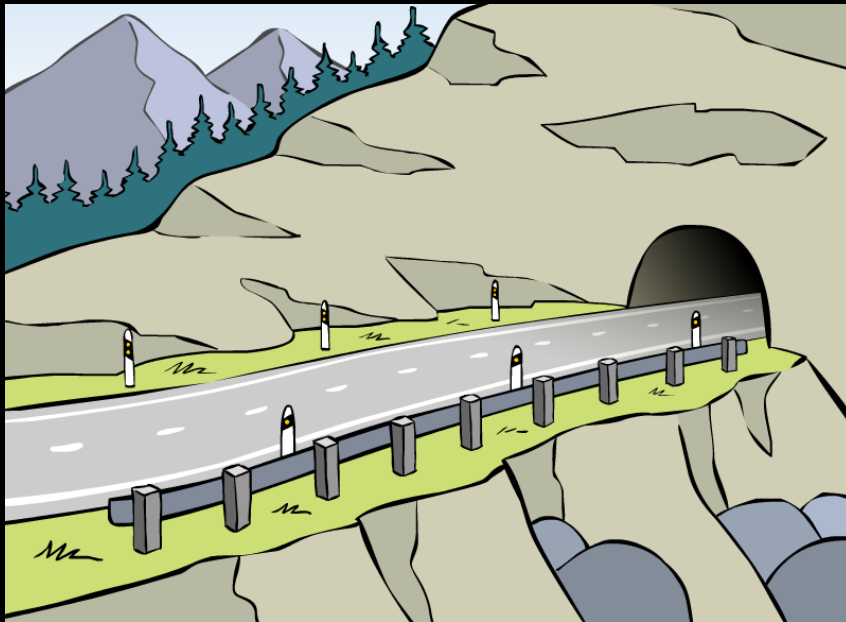
“The highway crawls through the city.” (Matlock 2004: 232)

1. the subject’s imagined self-motion through the desert along a highway;
2. the subject’s imagined motion of some external object, such as a car, along a highway;
3. the motion of something animate such as a snake, which resembles a highway
4. the viewpoint of someone who is (merely) visually “scanning” a highway

# Actual vs. non-actual motion

- *Actual motion* - from an observer's perspective: “the experience of continuous change in the relative position of an object against a background” (Zlatev, Blomberg & David 2010: 394)
- *Non-actual motion (experiences)*: Dynamic qualities of consciousness (perception, imagination) related to situations lacking actual motion (Blomberg & Zlatev 2013)

# Non-actual motion (NAM) sentences vs. experiences



- 1) **NAM-sentences:** Descriptions of such pictures/situations including (at least) a motion verb
- 2) **NAM-experiences:** processes of consciousness that motivate the use of such sentences

# NAM-sentences are common....

(3) *The road goes into the forest* (Eng)

(4) *Väg-en går in i skog-en* (Sw)  
road-DEF go.PRES in(PRT) in(PREP) forest-DEF

(5) *Pāt-yat na-vliza v gora-ta* (Bulg)  
road-DEF IMPF-enter in forest-DEF

(6) *Thanǎn khâw pay nay phaa* (Thai)  
road enter go in forest



## ... but subject to linguistic constraints!

(7) *Sono*            *haiuee*            *wa*            *heeya*  
the            highway            Top            plain  
*no*            *mannaka*            *o*            {*tooru/iku/too-te-iku*}  
GEN            center            ACC            cross/go/go-through  
'The highway {crosses/goes in/goes through} the centre of the plain.'

(8) *Sono*            *densen wa*            *heeya*  
the            wire            top            plain  
*no*            *mannaka*            *o*            {*tooru/\*iku/??too-te-iku*}  
GEN            center            ACC            {cross/go/go-through}  
'The wire {crosses/goes in/goes through} the centre of the plain.'

(Matsumoto 1996)

# Possible motivations (1)

- *Affordance*: The subject relates to the environment in a dynamic and engaged mode of experiencing: *we perceive a road or a path as features of the environment that afford movement.*  
 (“cognitive bias towards dynamism”, Talmy 2000)
- (11)
- a. The road goes through the forest.
  - b. The path leads to the top of the mountain.

## Possible motivations (2)

- *Scanning*: the role of the subjective perspective; motion as either objectively (12a) or as subjectively (12b) construed (Langacker 1990)

- (12) a. The balloon rises.  
b. The trail rises steeply near the summit.

## Possible motivations (3)

- *Imagination*: Sentences where the verb of motion expresses a particular manner of movement, often typical for a certain living creature (“mental simulation” Matlock 2004)

- (13) a. The highway *crawls* through the city.  
b. There is like this *snaking* road up over the hills.  
(Brandt 2009: 582)

# Possible motivations (4)

- *Metonymy*

MOTION ALONG PATH FOR CONFIGURATION OF PATH  
(Martínez-Losa 2007)

- (14 )
- a. The road goes into the forest.
  - b. The road has a certain configuration with respect to the forest: the initial part (closest to us) is outside, the further part (away from us) is inside...

# Summary

- Non-actual motion **experiences** correspond to at least three different possible *motivations*.
  - **Affordances**: The enactive/engaged nature of perception
  - **Scanning**: the ability to redirect attention to the act of intending.
  - **Imagination (re-enactment)**
- **NAM-sentences as linguistic compressions (metonymy)**

=> Experimentation with different conditions and languages is needed to tease these factors apart!

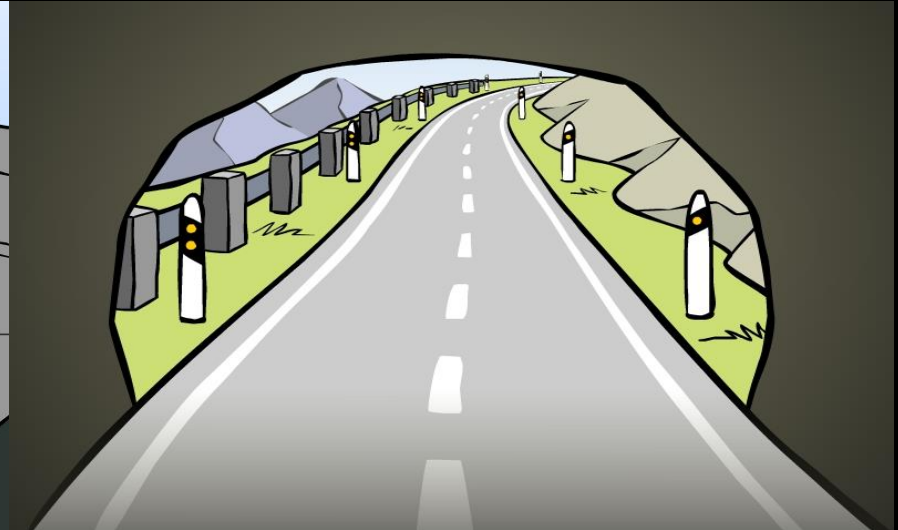
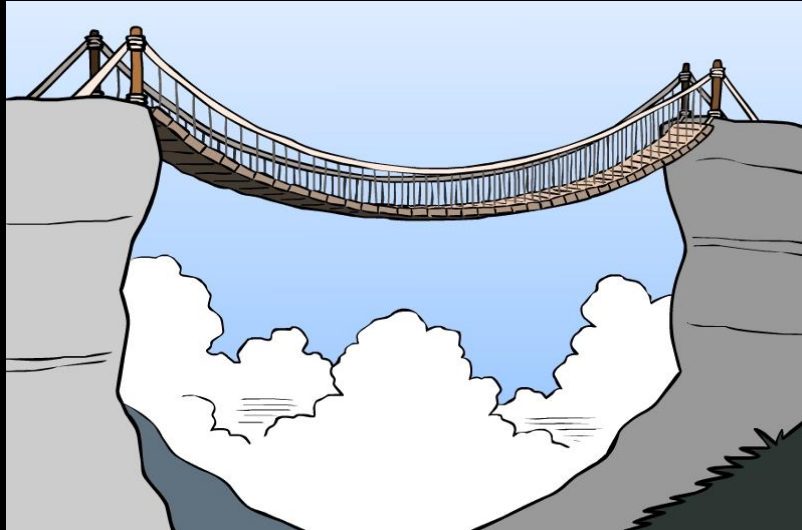
# Method

- 24 pictures (+ 12 controls) according to a 2-by-2 design:
  - 12 in which the figure affords motion, 12 not
  - 12 from 1<sup>st</sup> person perspective, 12 from 3<sup>rd</sup> person perspective
- Described by native speakers of Swedish (n=16), French (n=14) and Thai (n=14)
- Video-recorded, and transcribed using ELAN
- Instructions: *You will see a number of pictures. Look at the picture and describe it in one sentence. Try to give natural and colloquial descriptions – as if you were to informally describe the picture for someone who has not seen it.*

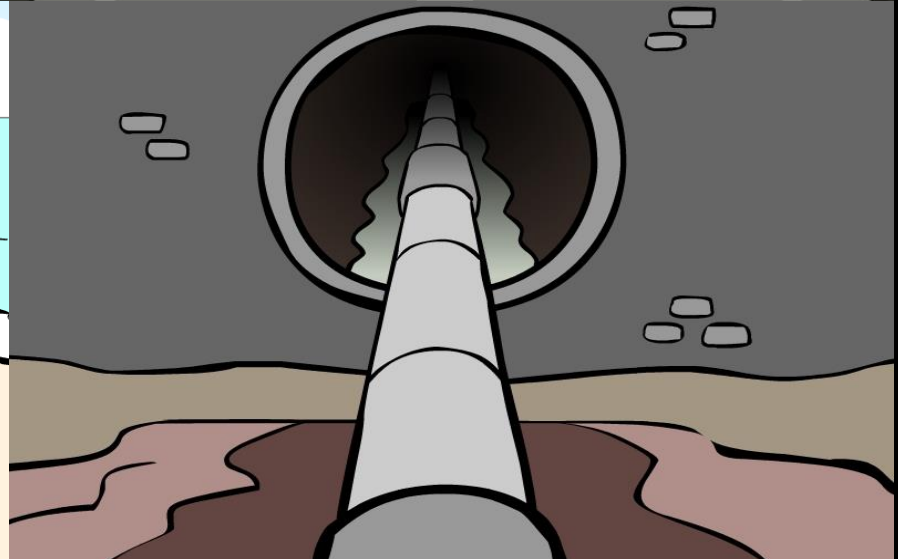
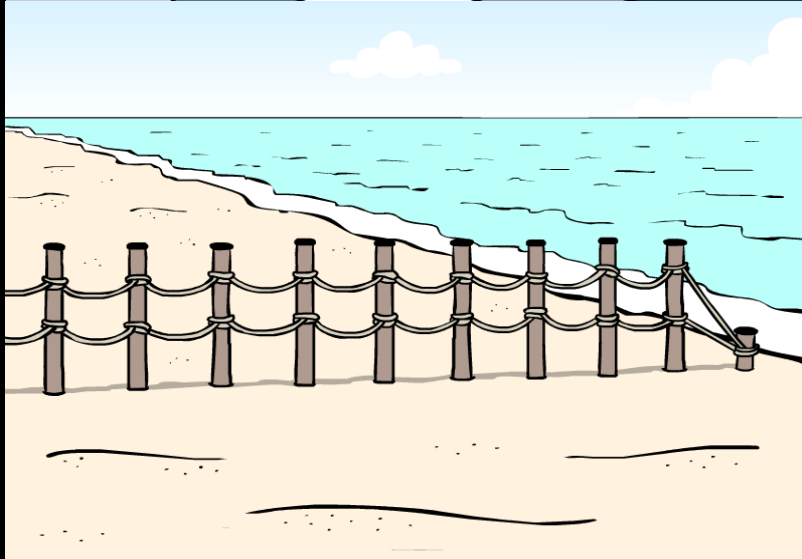
Perspective: 3<sup>rd</sup> person

1<sup>st</sup> person

Affords  
Self-  
motion



Does  
not  
afford  
motion





# Hypotheses

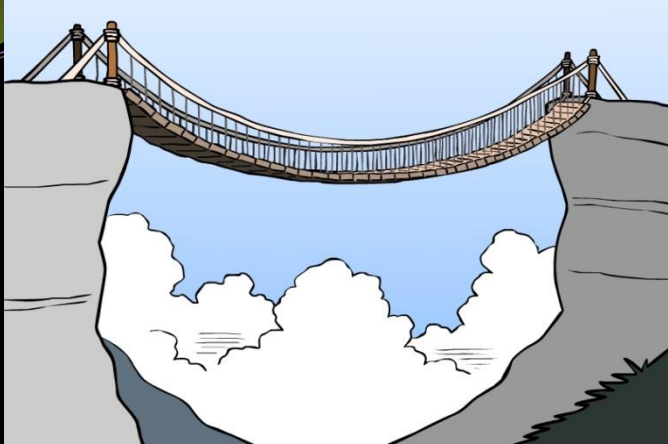
**H<sub>1</sub>:** All categories of pictures will elicit some NAM-sentences from some speakers in both languages

**H<sub>2</sub>:** IF Metonymy THEN Most NAM-sentences in + Afford motion, irrespective of Perspective

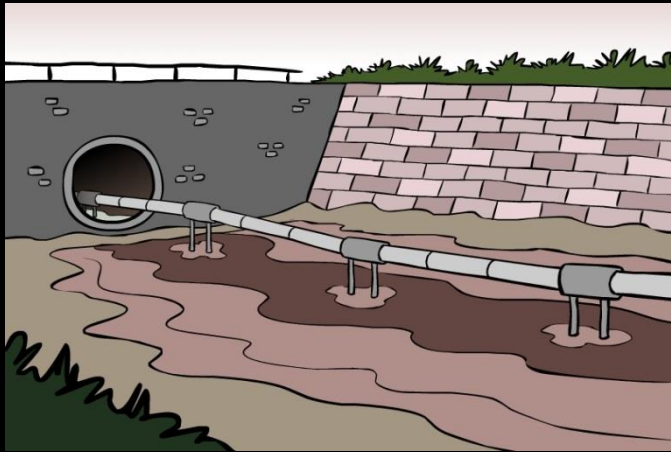
**H<sub>3</sub>:** IF Scanning THEN Most NAM-sentences in 3<sup>rd</sup> person perspective, irrespective of +/- Afford Motion

**H<sub>4</sub>:** IF Multi-motivated THEN Most NAM-sentences in the combination + Afford + 1<sup>st</sup> pp

Perspective: 3<sup>rd</sup> person



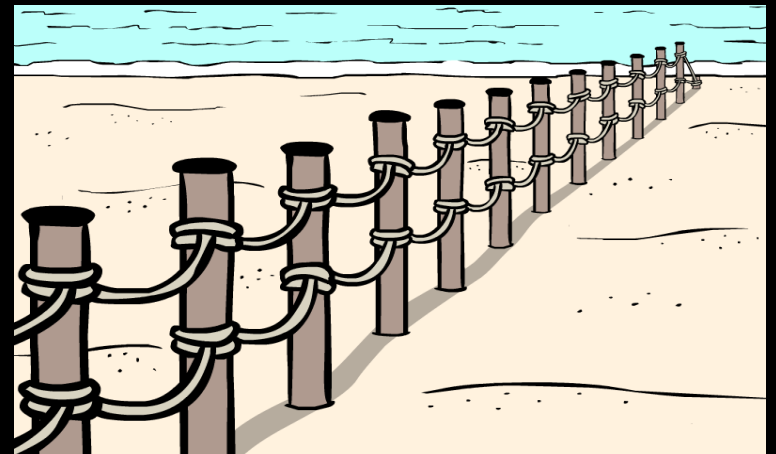
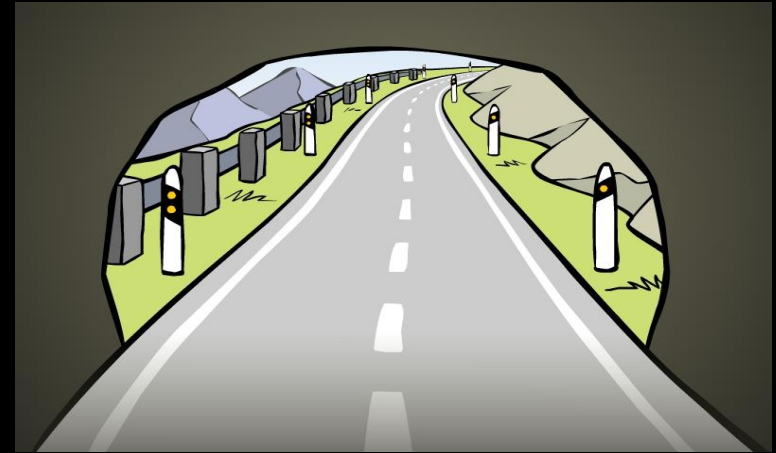
- *En hängbro **löper** från ett berg till ett annat.* ('A hanging bridge **runs** from one mountain to another.')
- *Un pont suspendu pour **traverser** un grand précipice...* ('A hanging bridge for crossing a great ravine')
- *Saphan **yong kham** rawang song napha* ('bridge **link cross** between two cliffs')



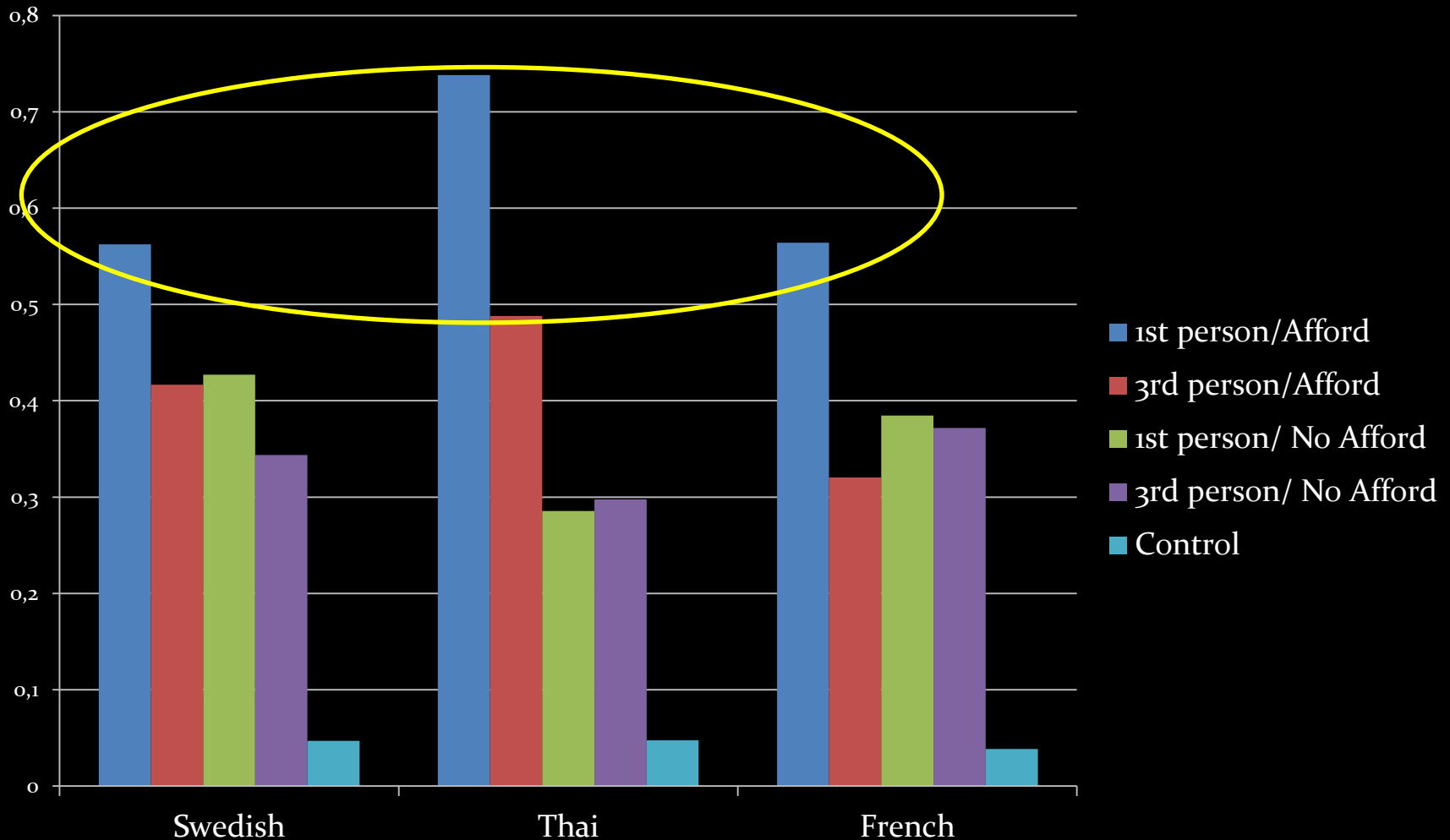
- *Ett avloppsrör som **leder** in i en vägg.* ('A drainpipe that **leads** into a wall.')
- *Une canalisation d'égout qui semble fuir qui traverse qui s'apprête à **entrer** dans un tunnel.* ('A sewer pipe, which seems to leak, is getting ready to **enter** into the tunnel.')
- *Mi tho prapa **khâw pai** nai chong...* ('have pipe water **enter go** into a hole')

## Perspective: 1<sup>st</sup> person

- *En bilväg kommer ut ur en tunnel.*  
(‘A road comes out of a tunnel.’)
- *C’est une sortie de tunnel qui débouche sur une route qui s’en va vers la campagne.*  
(‘An exit of a tunnel that opens onto a road that goes to the countryside.’)
- *Mi thanon tat khâw pai nai umong*  
(‘have road cut enter go into cave’)
- *Ett staket som går på en strand ut mot vattnet.*  
(‘A fence that goes on a beach out towards the water’)
- *Un barrière sur la plage qui va ... jusqu’à l’autre extrémité de la plage.*  
(‘A barrier on the beach that goes to the other end of the beach’)
- *Mi rua yao pai thueng thale.*  
(‘have fence long go to sea’)

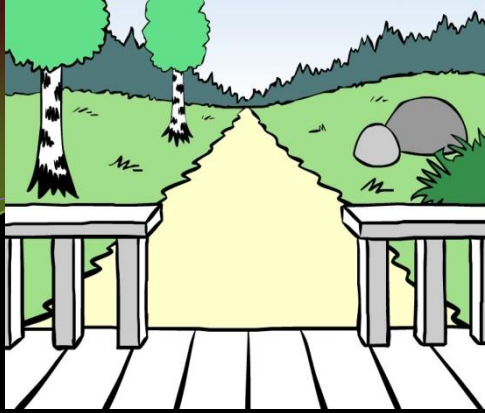


# Results



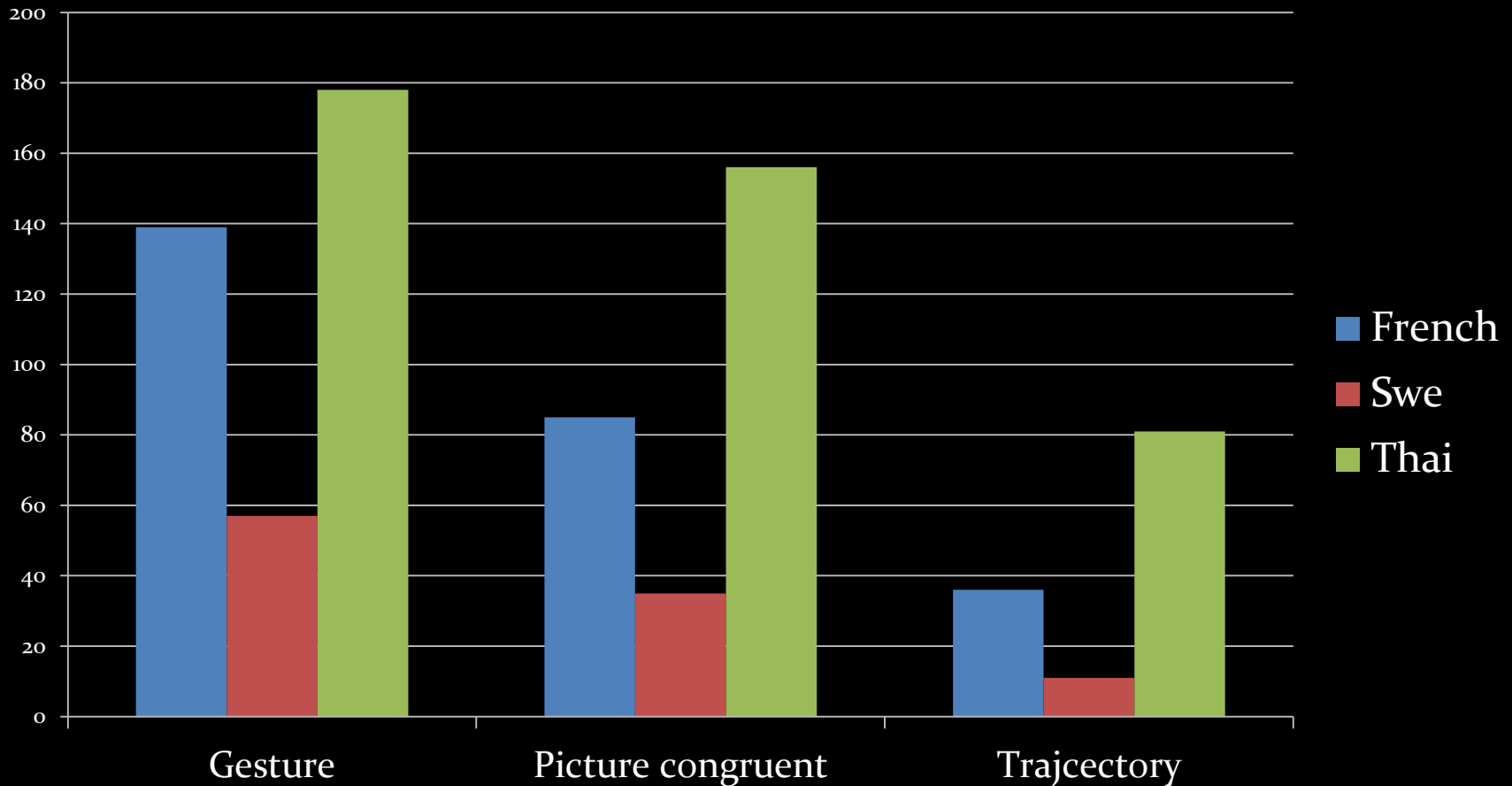
# Analysis of co-speech gestures

- Did the description have (at least) one co-speech gesture?
- Did the gesture(s) refer to the picture?
- Did the gesture(s) have the shape of an extended path or direction (“trajectory”)?

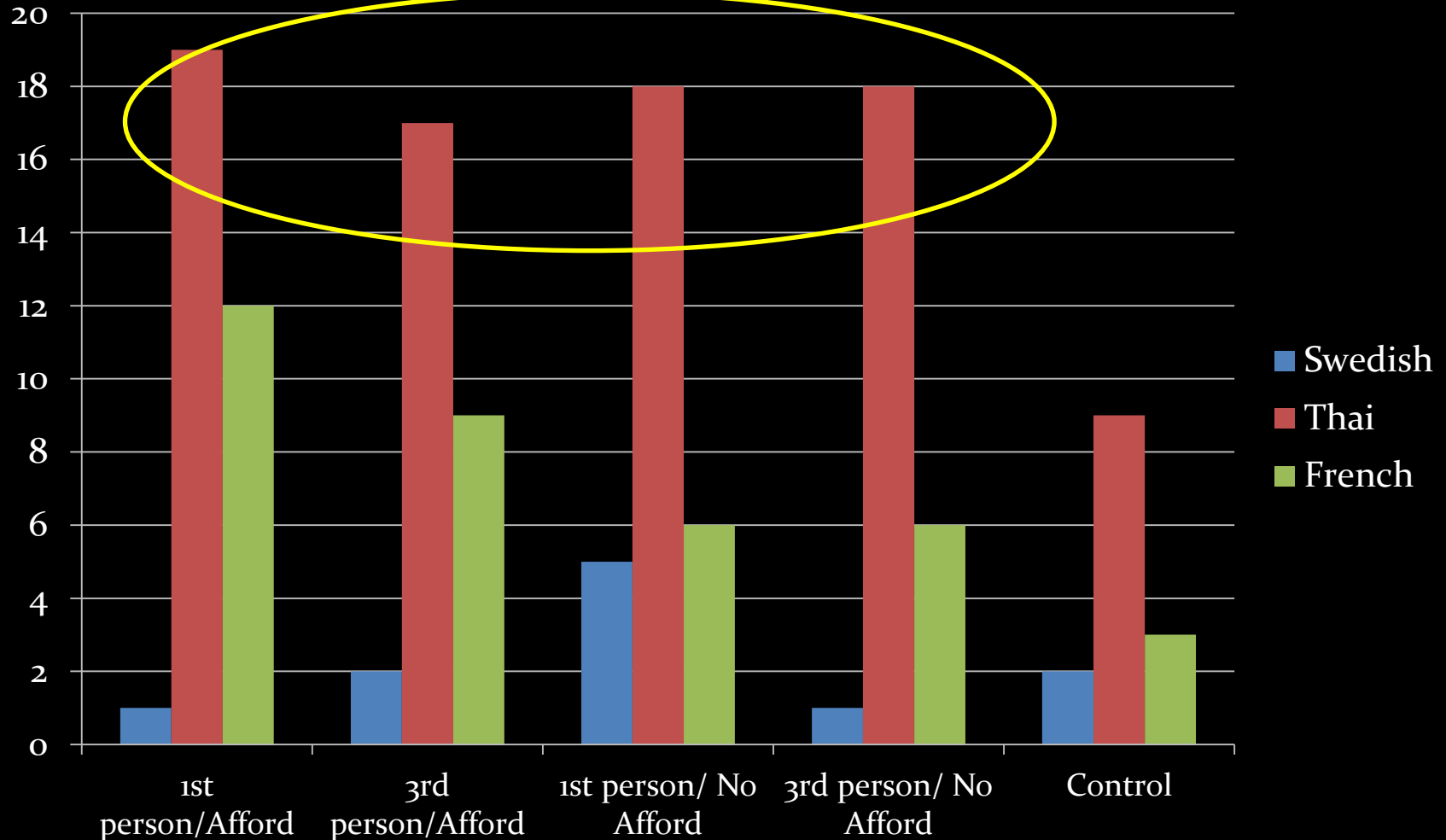


*Muean Rabiang Na Ban / Lao\_Ko Mong **Ok Pai** Pen Thanon  
/ Lae Ko Mi Tonmai Song Ton Yu Na Ban Khot\_Hin Song Kon.  
(‘like balcony in front of house / then see **exit go** is road  
/ and have two trees in front of house, and two rocks’)*

# Gestures: Total



# Gestures: per scene type





# Results

- **H1:** For all three languages, a large proportion of NAM-sentences:
  - $\approx 40\%$  French, Swedish
  - $\approx 50\%$  Thai
- **H2:** +Afford > -Afford
- **H4:** +Afford AND +1pp
- Very few manner/content-rich verbs (“crawl” etc.) that would indicate a motivation for imagination (metaphor)
- Most gestures in **Thai: NAM-scenes > Controls**

# Conclusions

- All **three motivations** likely play a role for eliciting NAM-sentences (especially Affordance)
- A role for (linguistic) **metonymy**
- The **availability of linguistic conventions**: the frequent use of Path (e.g. *khâw*) and Deixis verbs (e.g. *maa*) in Thai serial verb constructions: the reason for more NAM-sentences?
- Non-actual motion in language is a **multi-motivated phenomenon that calls for “hybrid explanations”**

# Thank you!



# References

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