Talking and gesturing about motion at different L2 proficiency levels

Christina Piot[1,2], Julien Perrez[1] & Maarten Lemmens[2]
University of Liège[1] & University of Lille[2]

Introduction
Background

SELF-PROPELLED MOTION EVENTS

Figure – Ground – Path – Manner

THE EXPRESSION OF MOTION EVENTS IN SPEECH

Verb-framed languages

Satellite-framed languages

Grosminet rentre dans la cage en marchant.
[Sylvester enters the cage walking.]

Sylvester loopt de kooi binnen.
[Sylvester walks into the cage.]

Thinking-for-speaking

(Slobin 1996, Talmy 2000)

THE EXPRESSION OF MOTION EVENTS IN CO-SPEECH GESTURE

Differences between V- and S-languages are reflected in co-speech gestures:

- Conflated gestures vs. two gestures;
- Semantic components;
- "Thinking-for-gesturing" (Kellerman & van Hoof 2003: 266)

(i.a. Cadierno & Ruiz 2006, Kita & Özyürek 2003, McNeill & Duncan 2000, Stam et al. 2023)

THE MULTIMODAL EXPRESSION OF MOTION EVENTS

- Overall picture
- Multimodal constructions
- Synchronization
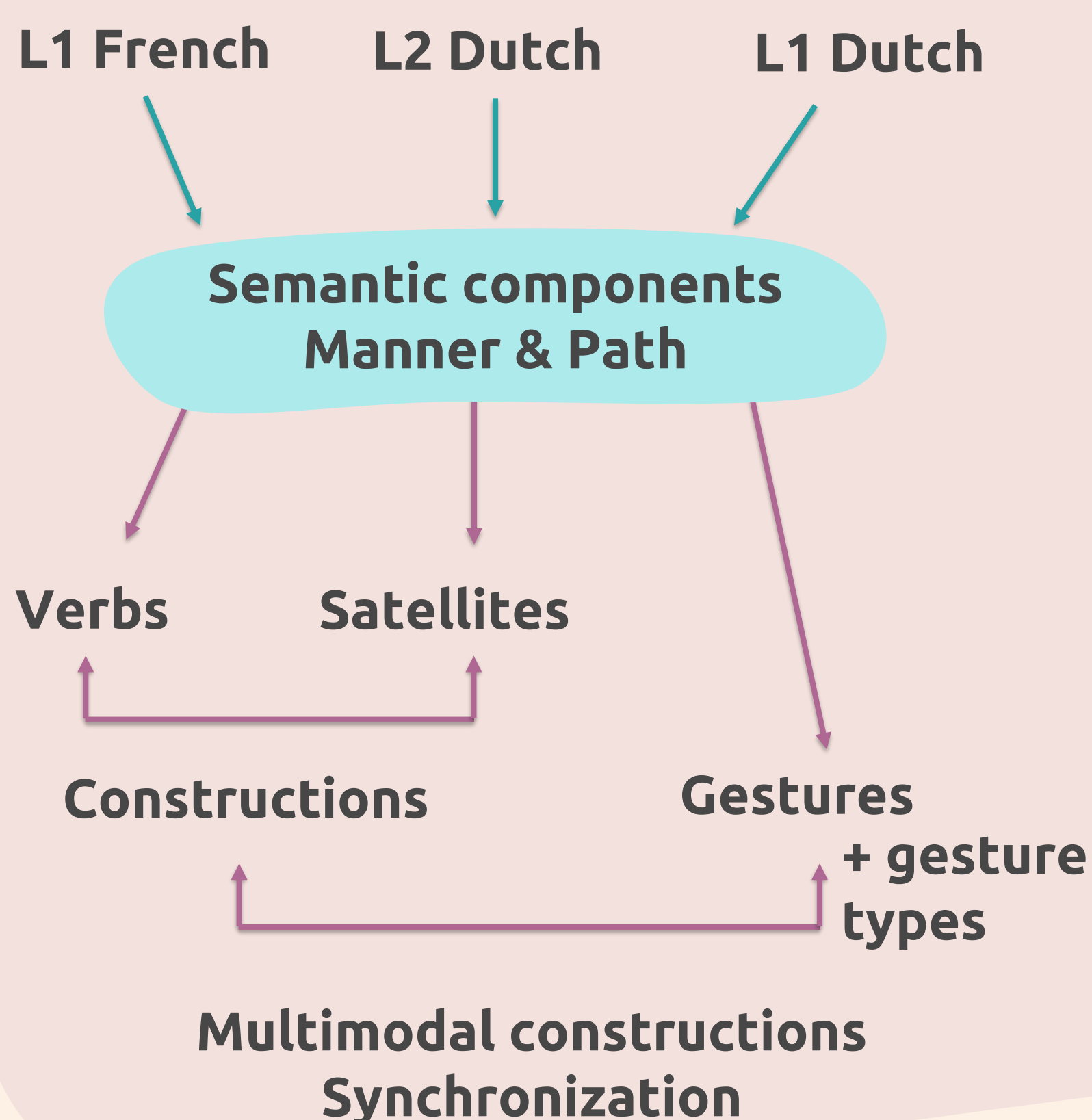 ➔ Multimodal thinking-for-speaking pattern
  (Özyürek et al. 2005, Stam 2006, 2008)

MOTION EVENTS IN A L2

- Shift from L1's pattern to L2's: difficult
- Multimodal TFS pattern

(i.a. Cadierno & Ruiz 2006, Cadierno 2017, Neguerela et al. 2004, Stam 2010)

Research questions

L1 French   L2 Dutch   L1 Dutch

Semantic components Manner & Path

Verbs   Satellites

Constructions   Gestures + gesture types

Multimodal constructions
Synchronization

Method
Participants

11 L1 French speakers
9 L1 Dutch speakers
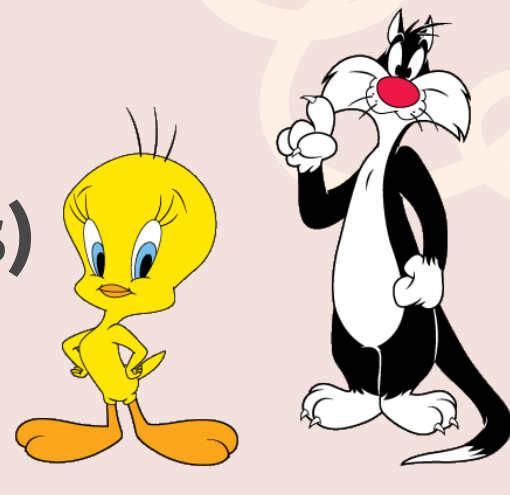12 CLIL French-speaking learners of Dutch:
- 2 of them have an A1 level
- 7 of them have an A2 level
- 1 of them has a B1 level
- 2 of them have a B2 level

Task

Tweet Zoo (15 fragments)
Matching game
(Freleng 1957)

Analysis

Speech	
Verb	Neutral/Manner/Path/ Manner and path/ Manner and path (prefix)
Satellite	Manner/Path/Location/ Combination
Construction	e.g. MannerV + PathS
Boundary crossing	Yes/No

Co-speech gestures	
Type	Iconic/ Deictic/Metaphoric Pragmatic/Beat
Semantic component	Manner/Path/ Ground /Location/Combination

(Kendon 2004, 2017, McNeill 2006, Woerfel 2019)

Figure 1. PATH_GESTURE co-occurring with "Il passe à côté" (FR5, ME31)
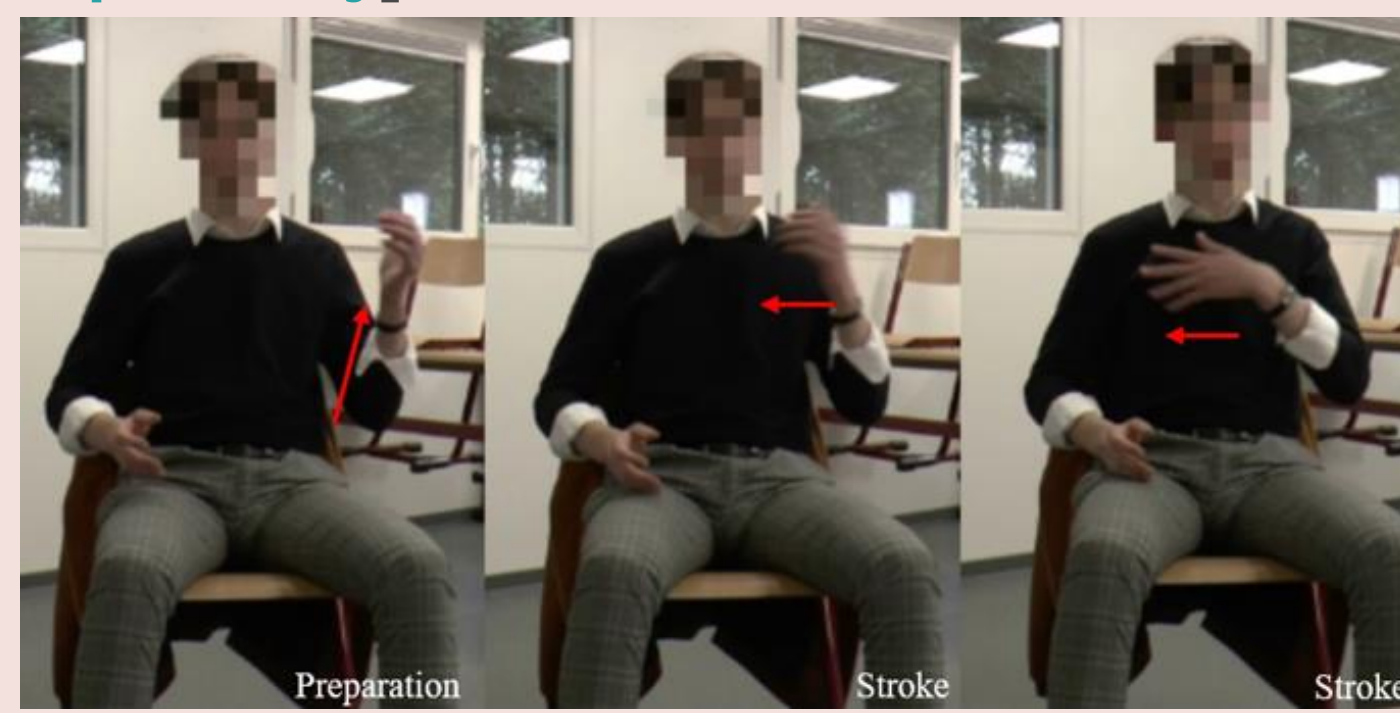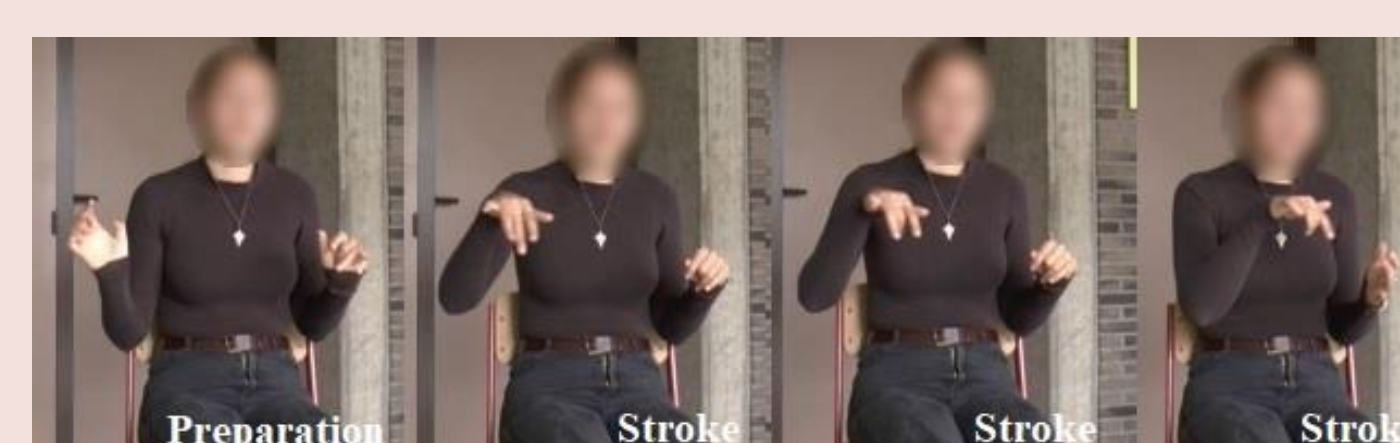[He passes by]

Figure 2. MANNER_GESTURE co-occurring with "hij gaat verder in het water" (CLIL7, ME72)
[he goes further in the water]

Figure 3. MANNERPATH_GESTURE co-occurring with "en dan lopen ze heel die muur af" (DU11, ME65)
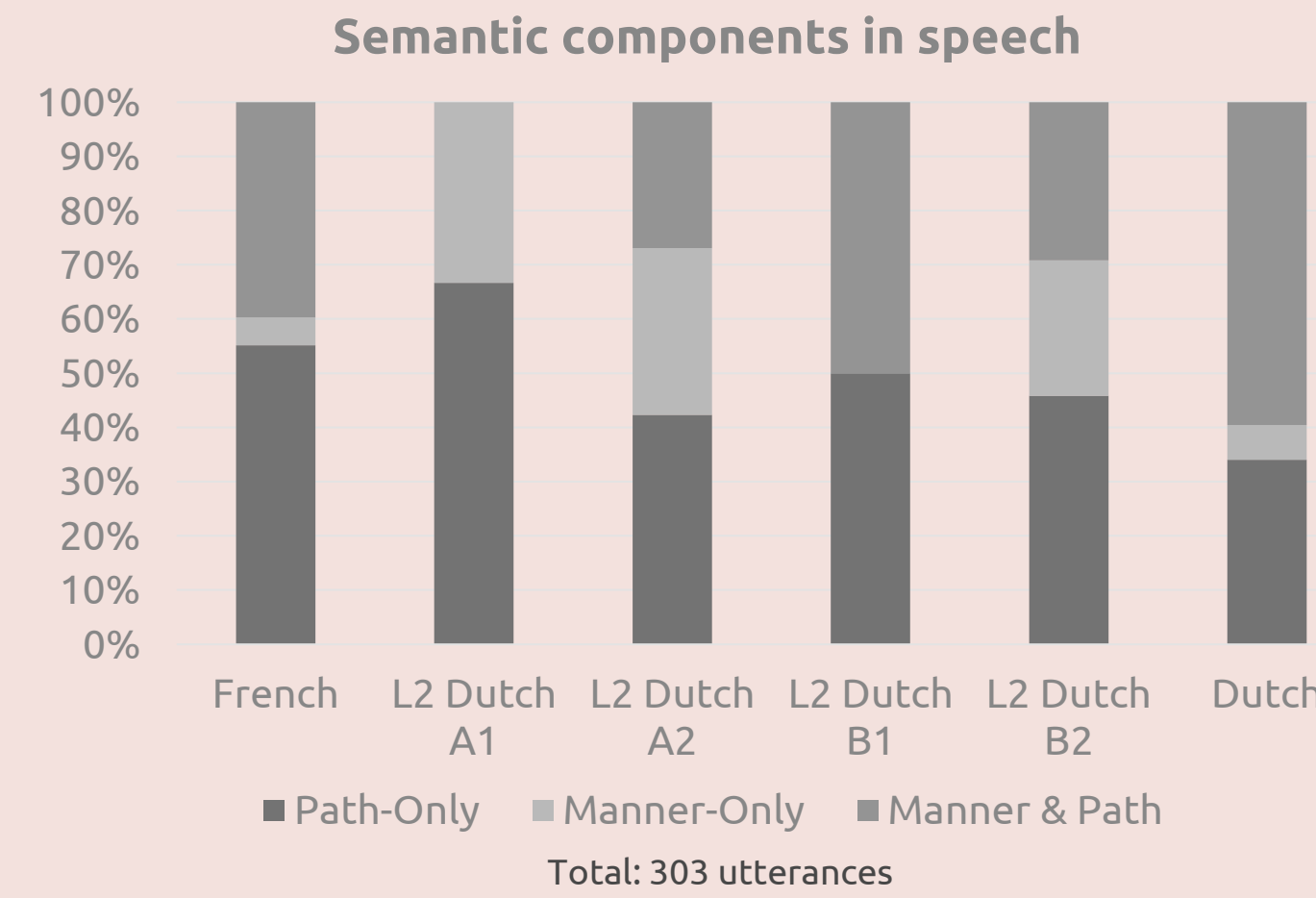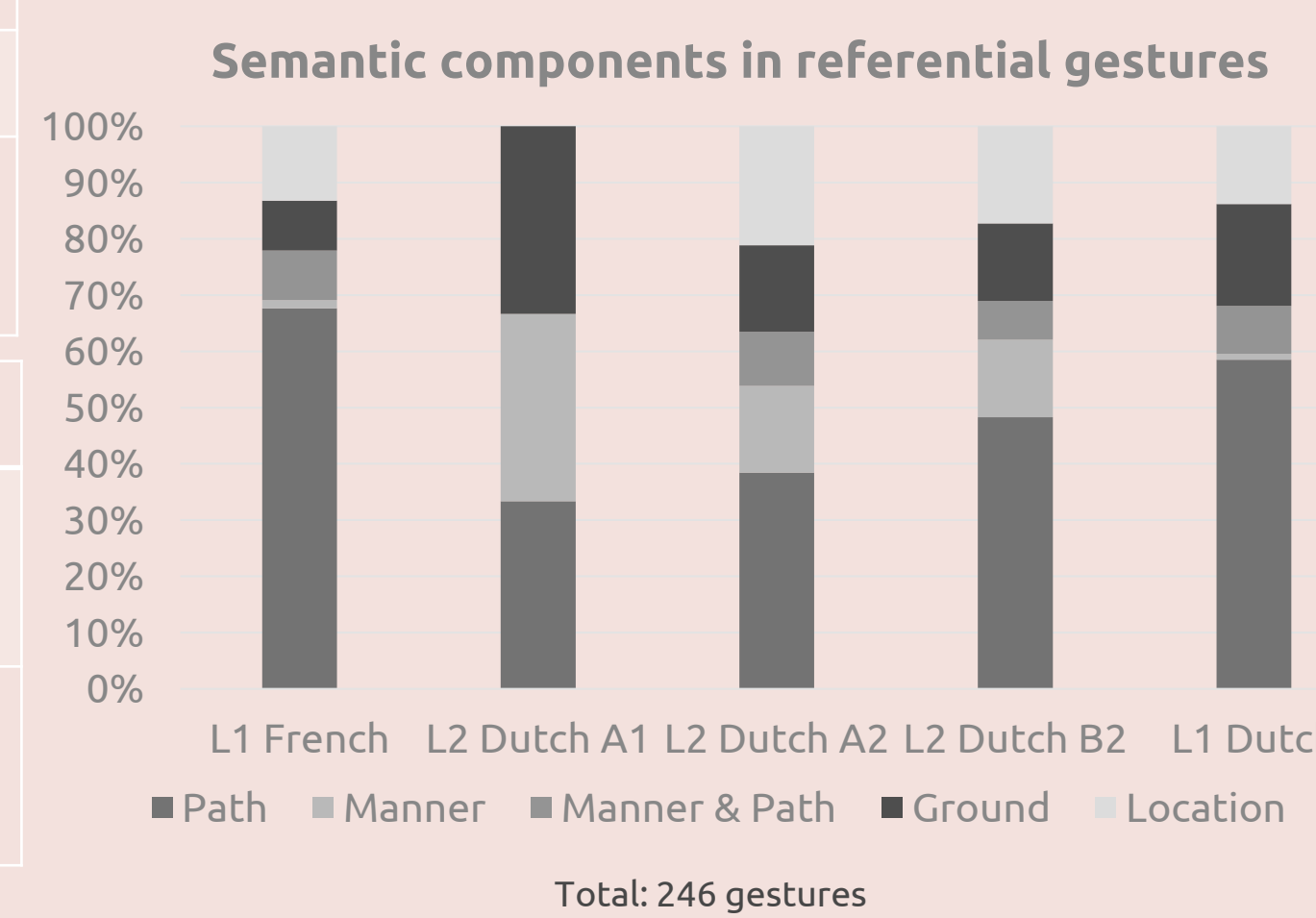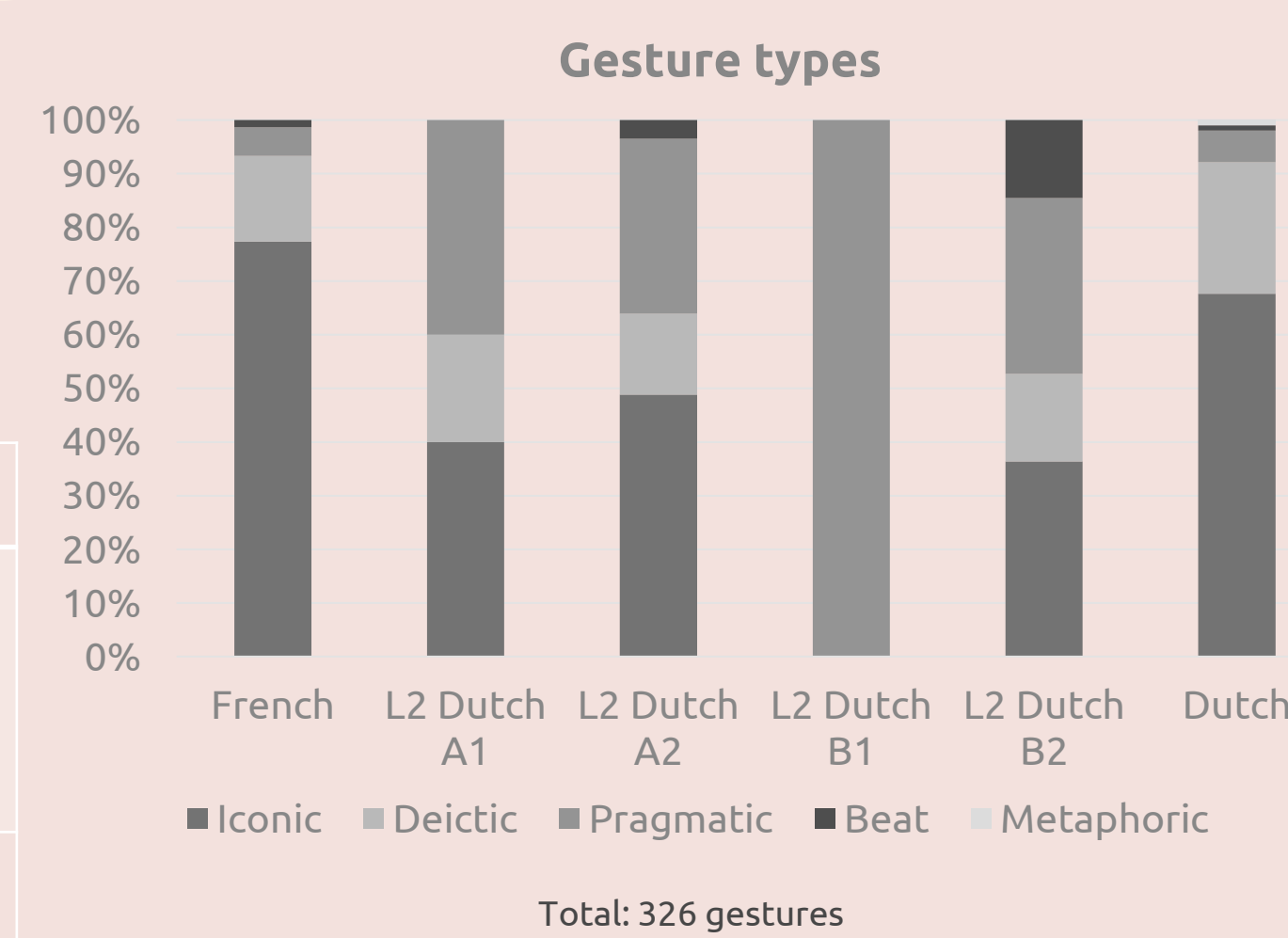[and then they walk all the way down the wall]

Multimodal Construction
Synchronization between referential gestures and speech units
(Özyürek et al. 2005, Stam 2006, 2008)

Results
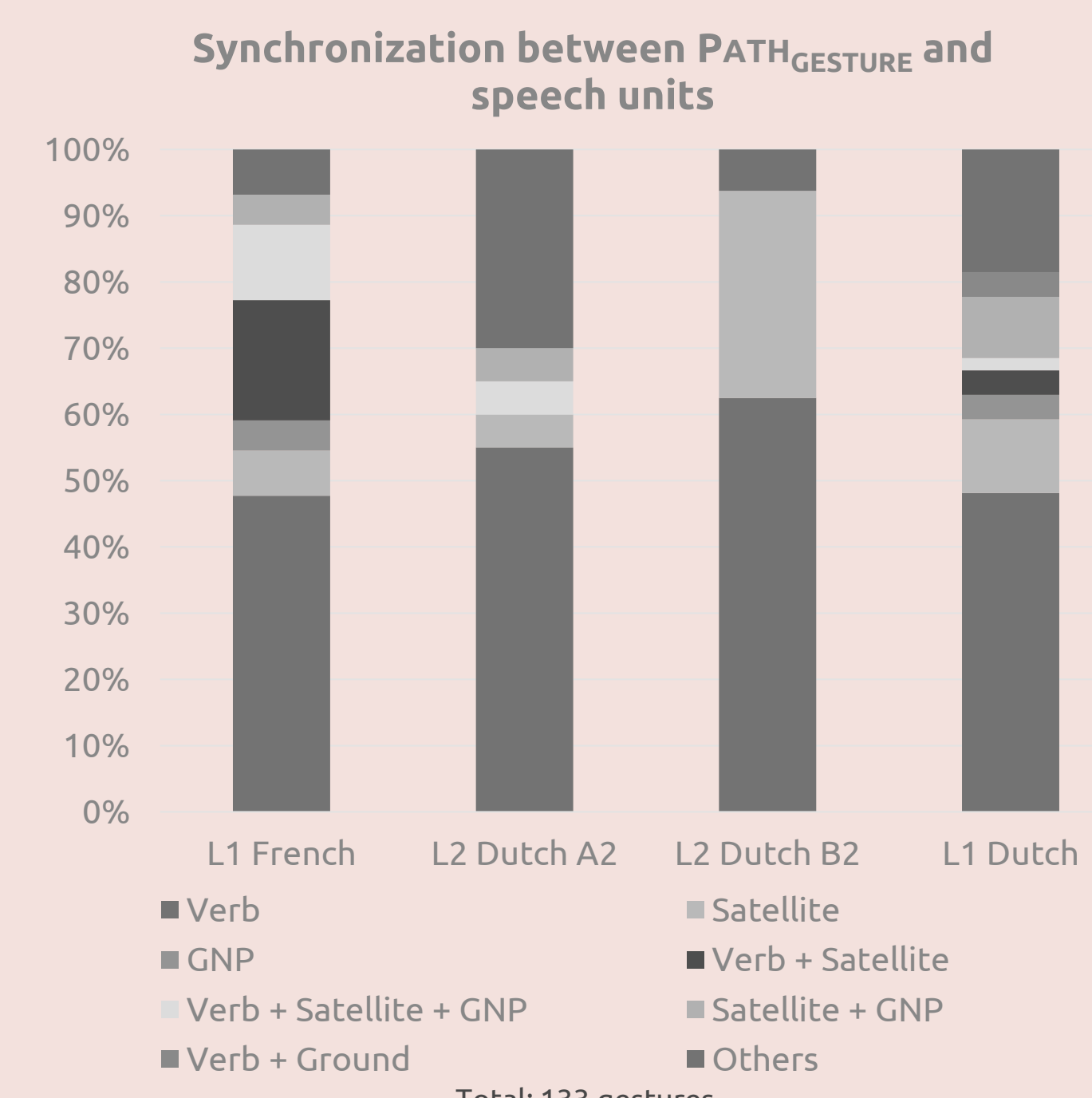### Speech

Semantic components in speech

Total: 303 utterances

Gesture

Gesture types

Total: 326 gestures

Semantic components in referential gestures

Total: 246 gestures

Speech & Gesture

Semantic components in speech and gesture
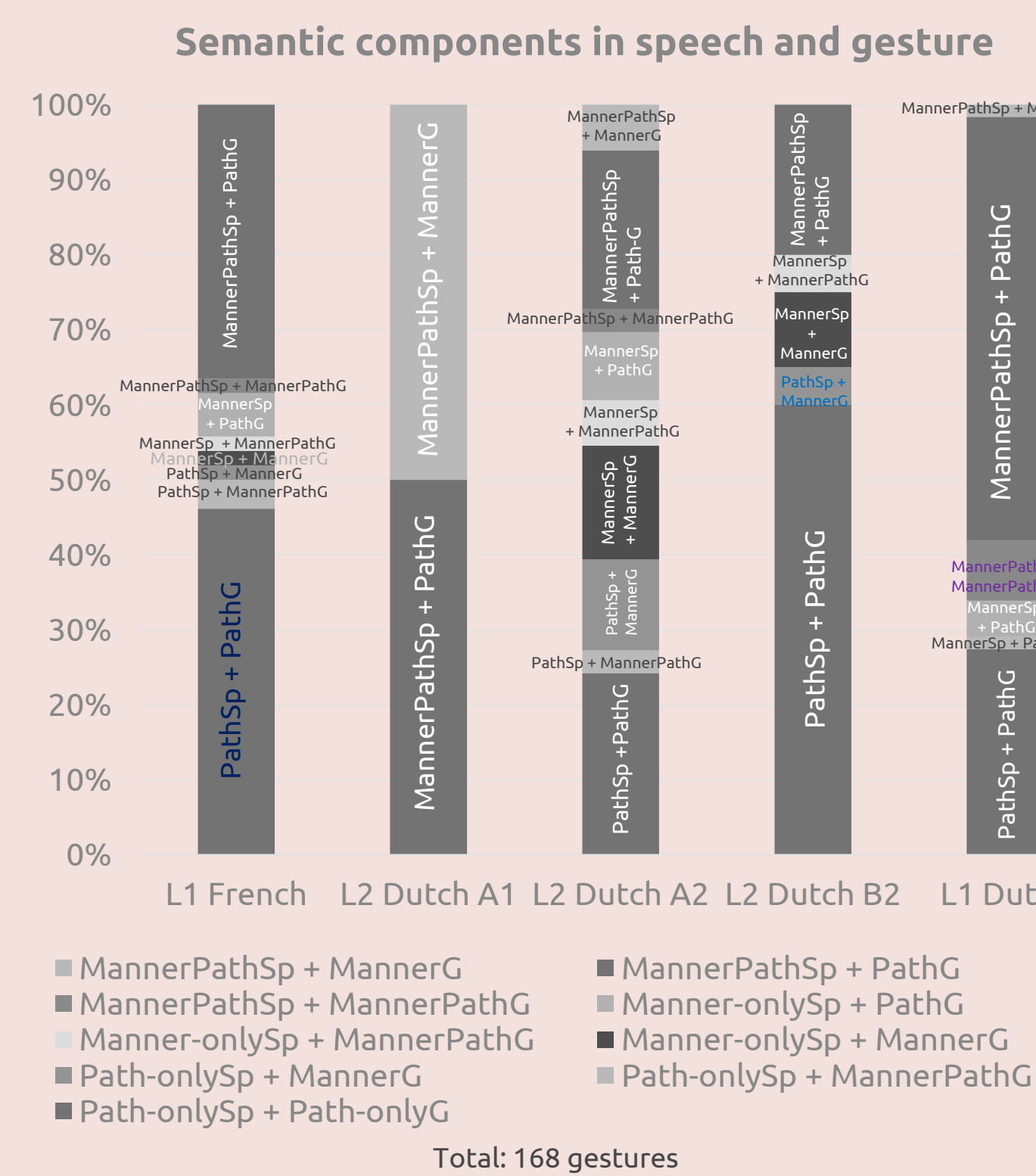

Total: 168 gestures

Synchronization between PATH_GESTURE and speech units

Total: 133 gestures

Discussion & Conclusion
Speech

- L1 French: Path-Only > Manner&Path
- L1 Dutch: Manner&Path > Path-Only
➔ Continuum?
- L2 Dutch:
  - Manner-Only: more often than in L1 but ↘ as the proficiency level ↗
  - Manner&Path: B2 > A2
  - But: Path-Only: B2>A2
➔ L2 Dutch: characteristics of both TFS-patterns

Gesture

- Pragmatic gestures: L2 > L1 (// Piot, under review)
- Deictic gestures: L2>L1 and ↘ as the proficiency level ↗
- MannerG, LocationG and GroundG: L2>L1 but ↘ as the proficiency level ↗
- PathG: L1 French > L1 Dutch(// Alferink 2015, Piot, under review) > L2 Dutch
➔ L2: own system

Speech & Gesture

- More variety in L1 French than in L1 Dutch
- Path-Only in French vs. MannerPathSp + PathG in Dutch
- A lot of variation in L2
- Gestures adding information: more frequent in L2 Dutch (mostly A2): sometimes compensation gestures
➔ L2: own TFS-pattern + Path-Only // French: difficult to switch (// i.a. Cadierno & Ruiz 2006, Cadierno 2017, Neguerela et al. 2004, Stam 2010)

Further research

- More data & L2 learners' evolution
- Observer viewpoint vs. character viewpoint gestures
- Boundary crossing gesture (McNeill 1992, Parrill 2011, Stam 2018)

References

Contact information
Christina Piot
christina.piot@uliege.be
Maarten Lemmens
maarten.lemmens@univ-lille.fr
Julien Perrez
Julien.Perrez@uliege.be