



HAL
open science

What do co-speech gestures tell us about conceptualization? The case of caused motion events

Christina Piot

► **To cite this version:**

Christina Piot. What do co-speech gestures tell us about conceptualization? The case of caused motion events. GESPIN, Sep 2023, Nijmegen, Netherlands. hal-04547548

HAL Id: hal-04547548

<https://hal.science/hal-04547548>

Submitted on 15 Apr 2024

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

What do co-speech gestures tell us about conceptualization?

The case of caused motion events

Christina Piot

Introduction

Caused motion events

Motion – Figure – Ground – Manner – Path – Cause (Talmy 2000)

Motion events in speech

Verb-framed languages [French]	Satellite-framed languages [Dutch]
Titi rentre dans la cage en volant . [Tweety enters the cage flying .]	Tweety vliegt de kooi binnen . [Tweety flies into the cage.]

- Thinking-for-speaking

(Slobin 1996, Talmy 2000)

Motion events in co-speech gestures

≠ between V- & S-languages: 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, Stam et al. 2023)

→ Multimodal thinking-for-speaking pattern

Motion events in SLA

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

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

Caused motion events speech

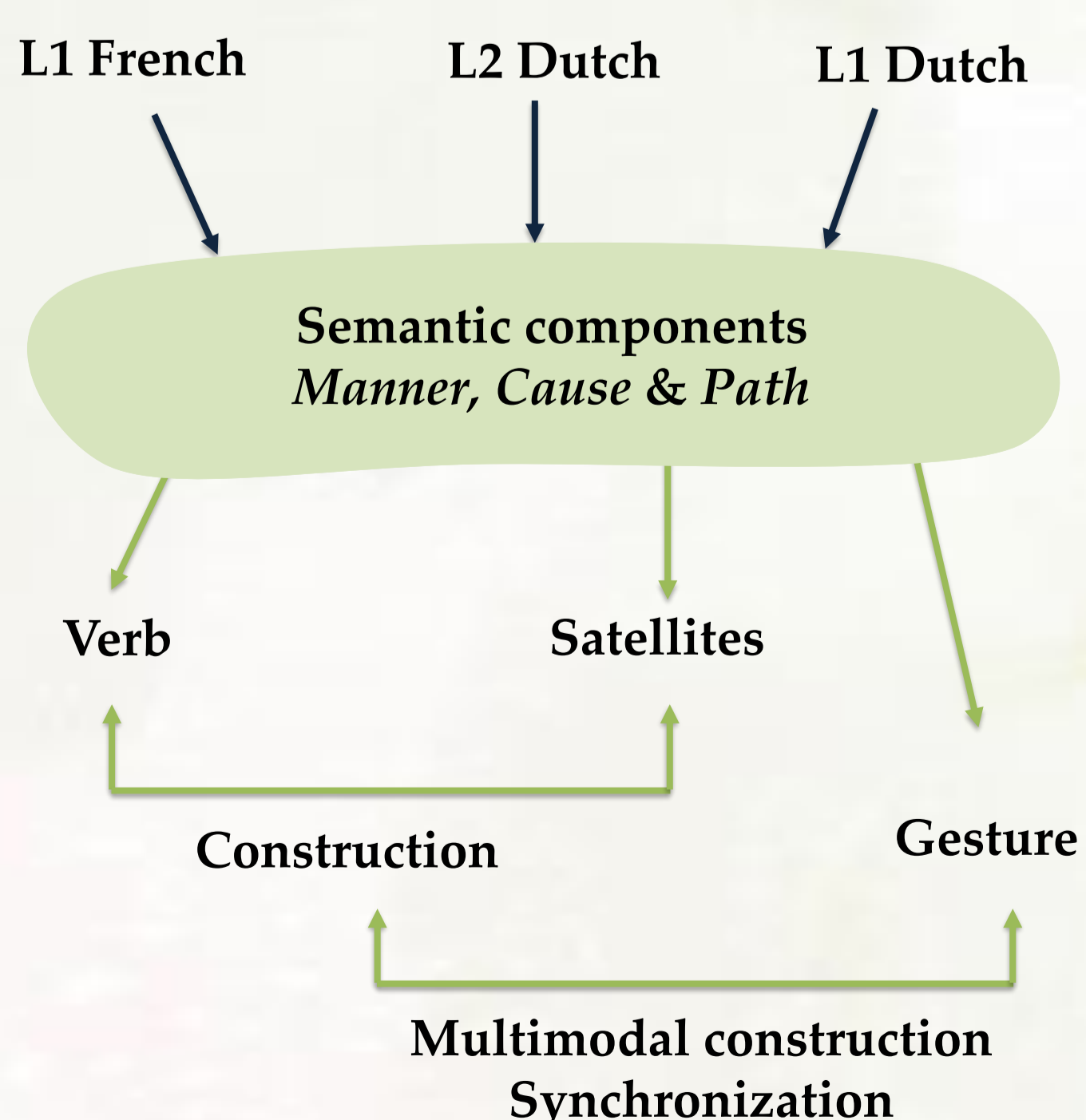
V-languages	S-languages
Using a transitive verb (1) Il a monté la balle dans sa chambre . [He took the ball up to his room]	Cause and/or manner in the verb & path in satellites (3) Zij schopte de bal in het doel . [She kicked the ball into the goal.]
Using a complex causative construction (faire 'make' + infinitive) (2) Il a fait rouler la balle le long du mur . [He rolled the ball along the wall]	

(Hendriks, Hickmann & Demagny 2008)

Caused motion events in co-speech gesture

- Few studies, more on placement events
- In Turkish (V-language): Action, often in combination with Path or Figure (Furman 2012)

Research questions



Method

Participants

15 L1 French speakers
12 L1 Dutch speakers
15 CLIL French-speaking learners of Dutch (proficiency level ranging between A1 and B2)

Task

Tweet zoo (Freleng, 1957)

15 fragments (69 CME)

Matching game



Coding

Speech	
Verb	Neutral/Manner + Cause/ Path + Cause/Manner and Path + Cause
Satellite	Manner/Path/Cause/Combination
Construction	e.g., MannerCauseV + PathS
Boundary crossing	Yes/No

Co-speech gestures	
Type	Iconic/ Deictic/ Pragmatic/Beat
Semantic components in deictic and iconic gestures	Manner & Cause/Path/Ground/Combination

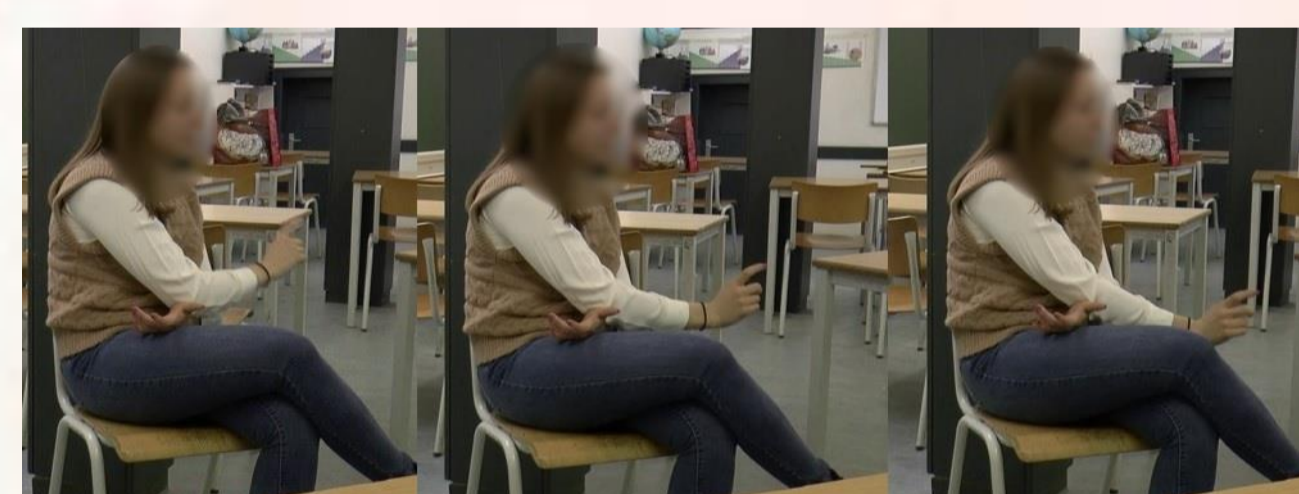
Iconic gestures

Figure 1: Manner, Path & Cause



“Dan zit iemand **biefstukken naar de tijgers te gooien**” [Then someone is throwing steaks to the tigers] (DU10, ME36)

Figure 2: Path



“De leeuw **gooit** de Grosminet **in de enclos van de beer**.” [The lion throws the Sylvester into the bear pen] (CLIL3, ME100)

Figure 3: Manner & Cause



“En **gaat daarmee naar de leeuwenkooi**.” (DU11, ME33 + ME34) [And goes with it to the tigers' cage.]

Figure 4: Ground

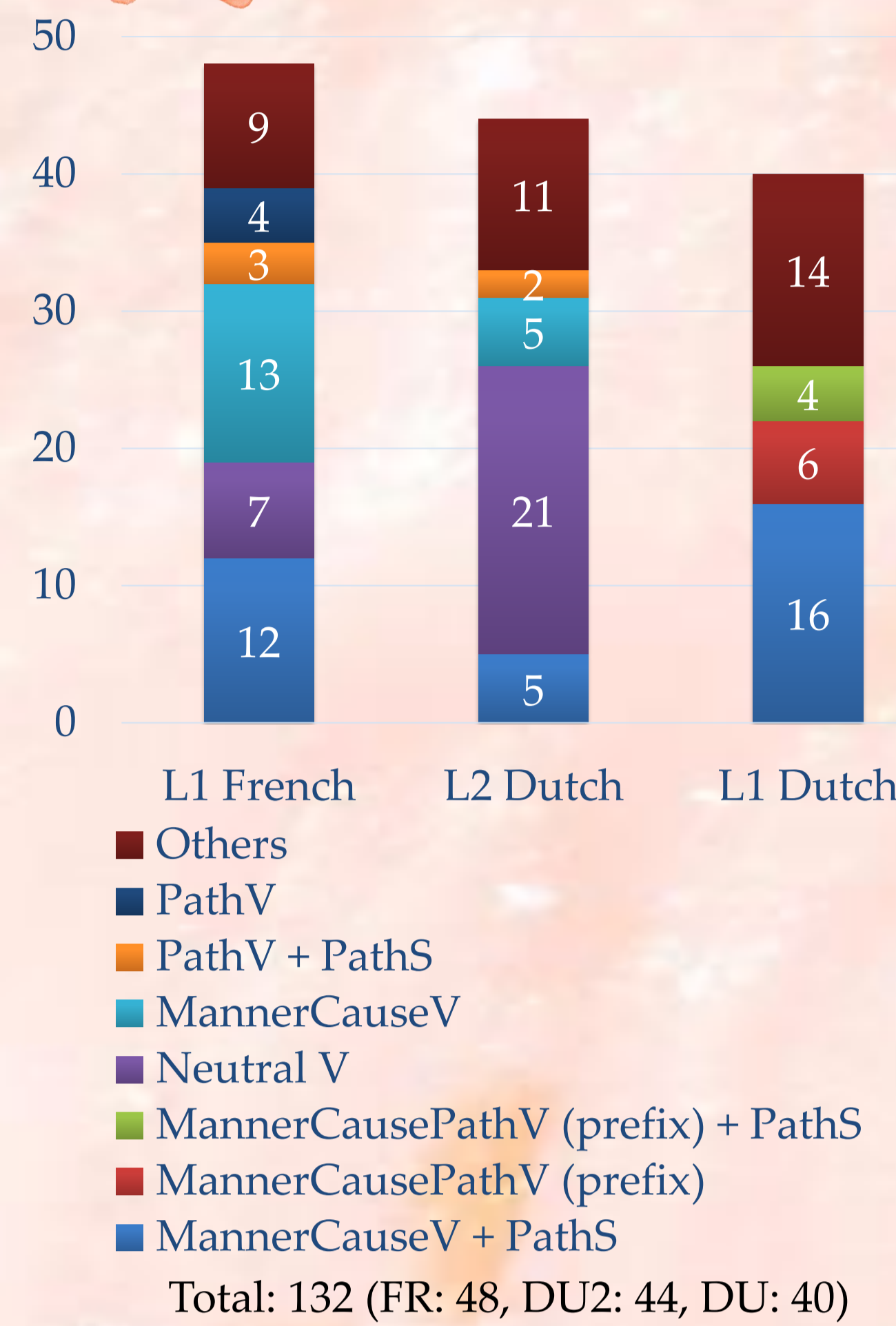


“Puis t'as un gars du zoo qui le ***conduit** la brouette **% jusqu'à l'enclos des tigres**.” (FR2, ME33 & 34) [Then there's a guy from the zoo who it *rides the brouette % to the tiger's pen]

Synchronization between iconic and deictic gestures and speech units

Multimodal Construction: semantic components in speech units and representational gestures

Results



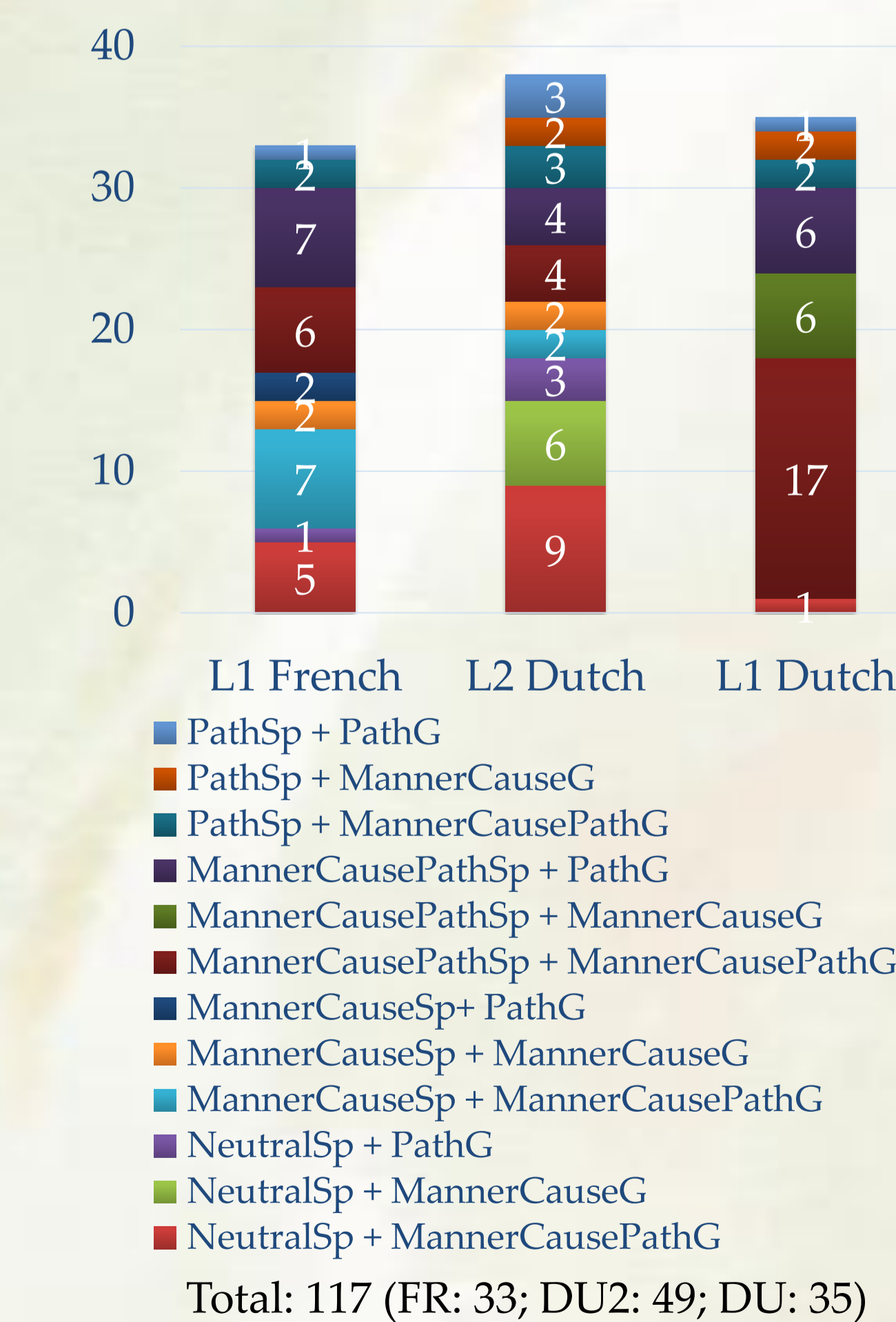
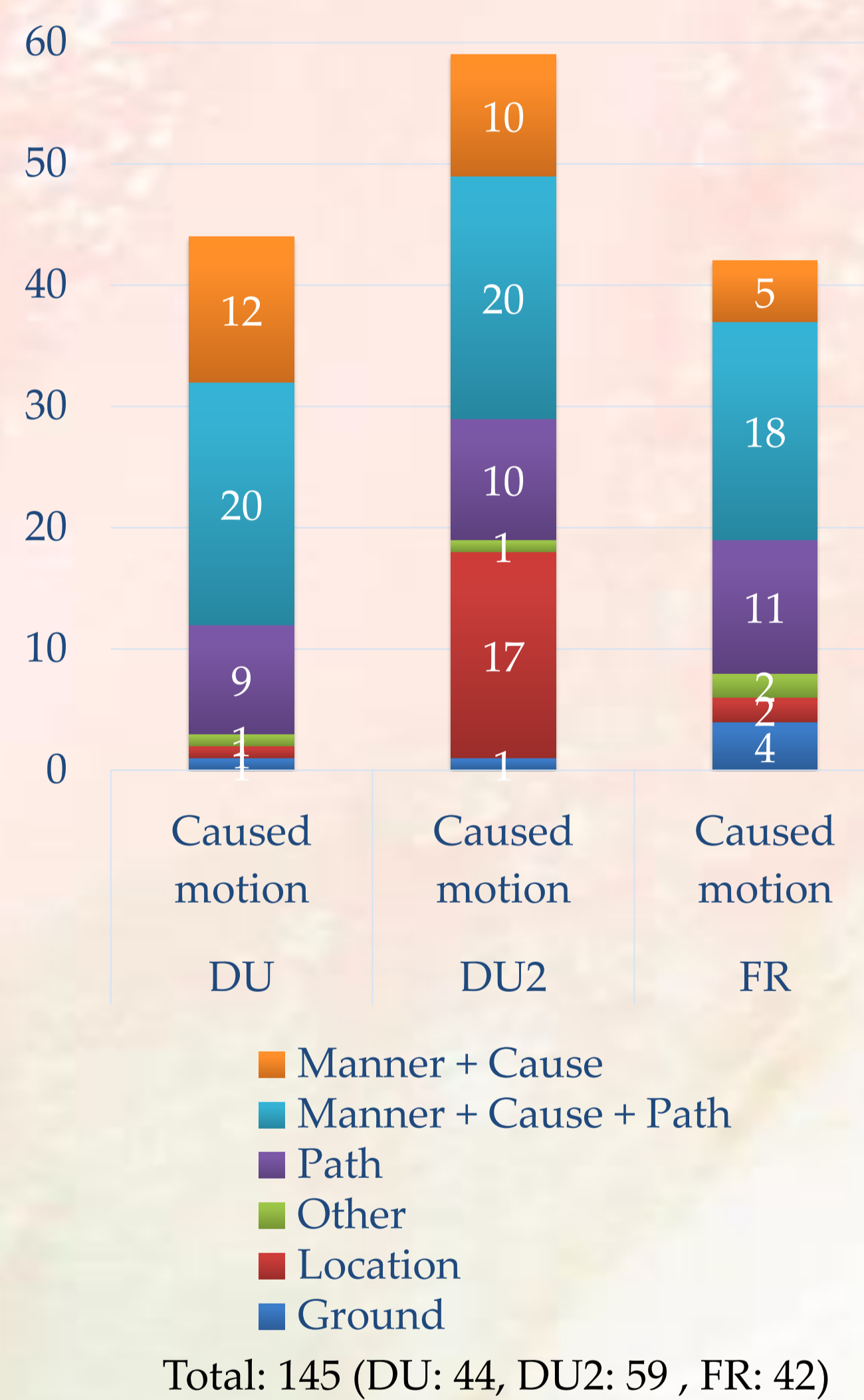
(4) Il le jette dans l'enclos d'un ours (FR1, ME99) [He throws it into the bear's pen]

(5) Il le lance avec (FR5, ME37) [He throws it with it]

(6) Il l'a amené au-dessus de l'étang (FR4, ME95) [He brought it above the pond]

(7) En <> maar <> de *een men neemt de poussette (CLIL2) [and <> *but the *a men takes the stroller]

(8) Dan trapt ie die weg (DU6, ME100) [And then he kicks it away]



Discussion & Conclusion

L1 French

- More variation than in Dutch in terms of speech combinations: // Hendriks, Hickmann & Demagny (2008)'s findings on French and English.
- Most frequent construction: MannerCauseV + PathS
- Sometimes only manner and cause in speech (+ conflated gesture).
- Manner: due to the motion events described?

L1 Dutch

- Most frequent constructions: MannerCauseV + PathS and MannerCausePathV (prefix)
- Manner and cause in the verb + a path-satellite and a gesture conveying manner, cause, and path
- Conflated gestures: more frequent than in French
- Multimodal constructions: more variation

L2 Dutch

- Neutral verbs
- MannerCauseV
- LocationG
- Conflated gestures
- Compensation?
- No MannerCausePathV (prefix) // almost no MannerPathV (prefix) when expressing self-propelled motion events
- Thinking-for-speaking pattern?

Conceptualization

- Caused motion events in speech: sometimes described as transfer events or actions vs. in gestures
- Gestures allow us to see how the event is perceived by the speaker

References

Cadierno, T. (2017). Thinking for speaking about motion in a second language. In I. Ibarretxe-Antunano (Ed.), *Motion and space across languages: Theory and applications* (pp. 279–300). John Benjamins Publishing Company.

Cadierno, T., & Ruiz, L. (2006). Motion events in Spanish L2 acquisition. *Annual Review of Cognitive Linguistics*, 4(1), 183–216.

Freleng, F. (Director). (1957). *Tweet Zoo*. In *Merrie Melodies*. <https://www.youtube.com/watch?v=SqhwHrd74>

Furman, R. (2012). *Caused motion events in Turkish: Verbal and gestural representation in adults and children*. LOT.

Hendriks, H., Hickmann, M., & Demagny, A.-C. (2008). How adult native learners of French express caused motion: A comparison with English and French natives. *Acquisition et Interaction En Langue Étrangère*, 27, 15–41. <https://doi.org/10.4000/aile.3973>

Kellerman, E., & van Hoof, A.-M. (2003). Manual accents. *IRAL - International Review of Applied Linguistics in Language Teaching*, 41(3), 251–269. <https://doi.org/10.1515/iral.2003.011>

Kita, S., & Özyürek, A. (2003). What does cross-linguistic variation in semantic coordination of speech and gesture reveal? Evidence for an interface representation of spatial thinking and speaking. *Journal of Memory and Language*, 48(1), 16–32. [https://doi.org/10.1016/S0749-596X\(02\)00505-3](https://doi.org/10.1016/S0749-596X(02)00505-3)

Negueruela, E., Lantolf, J. P., Jordan, S. R., & Gelabert, J. (2004). The “private function” of gesture in second language speaking activity: A study of motion verbs and gesturing in English and Spanish. *International Journal of Applied Linguistics*, 14(1), 113–147. <https://doi.org/10.1111/j.1473-4192.2004.00056.x>

Slobin, D. I. (1996). From “thought and language” to “thinking for speaking.” In J. J. Gumperz (Ed.), *Rethinking linguistic relativity* (pp. 70–96). Cambridge University Press.

Stam, G. (2010). Can an L2 Speaker's Patterns of Thinking for Speaking Change? In Z. Han & T. Cadierno (Eds.), *Linguistic Relativity in SLA: Thinking for Speaking* (pp. 59–83). Multilingual Matters. <https://www.degruyter.com/document/doi/10.21832/9781847692788-005/html>

Stam, G., & Urbanski, K. (Eds.). (2023). *Gesture and multimodality in second language acquisition: A research guide*. Routledge.

Talmy, L. (2000). *Toward a cognitive semantics* (Vol. 2). MIT Press.