

Motion in speech and gesture in a CLIL context

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The typological differences between verb-framed and satellite-framed languages observed by Talmy (2000) have been shown to be reflected in co-speech gestures as well (Brown & Chen, 2013; Kita & Özyürek, 2003; McNeill, 2005; McNeill & Duncan, 2000). Such gestures should therefore be taken into account when studying L2 learners' thinking for speaking patterns (Stam, 2018). More specifically, studies show different correlations between the types of language and (i) the realization of *manner fog* gestures and (ii) the synchronization between gestures and speech (Kita & Özyürek, 2003; McNeill & Duncan, 2000). Against this background, our study aims at determining how motion events are expressed in speech and co-speech gestures by French speakers (FS), Dutch speakers (DS), and CLIL French-speaking learners of Dutch (CLIL-FSLD).

We conducted an elicitation experiment in which participants recounted scenes from a *Tweety and Sylvester* cartoon. Fifteen FS, fifteen DS, and fifteen CLIL-FSLD with a pre-intermediate level completed the task. Using Kopecka's (2006) taxonomy, we identified the semantic components (*manner* and *path*) encoded in the verbs and satellites. Gestures were classified as *iconic*, *beat*, *metaphoric*, *deictic*, or *pragmatic* (McNeill, 1992; Kendon, 2004). Iconic and deictic gestures were further analyzed regarding the aspects of motion they convey (e.g. *manner*, *path*, *ground*) and their type (only for iconic gestures: *enacting*, *representing*, *drawing*, or *molding* (Müller, 2014)). Finally, we looked at the synchronization between speech and gestures following Stam (2006).

So far, 418 utterances and 534 gestures have been analyzed and our results show that FS tend to use $\text{Path}_{\text{VERBS}} + \text{Path}_{\text{SATELLITES}} + \text{Path}_{\text{GESTURES}}$ in both their L1 and L2 descriptions, whereas DS prefer using $\text{Manner}_{\text{VERBS}} + \text{Path}_{\text{SATELLITES}} + \text{Path}_{\text{GESTURES}}$. Second, CLIL-FSLD align path gestures with verbs more often than in the case of FS and DS. Finally, CLIL-FSLD produce more manner fog and non-substantive gestures.

These tendencies suggest that CLIL-FSLD rely more on gesture than L1 speakers and that they tend to replicate the thinking for speaking pattern of FS.

References

- Brown, A., & Chen, J. (2013). Construal of Manner in speech and gesture in Mandarin, English, and Japanese. *Cognitive Linguistics*, 24(4), 605–631. <https://doi.org/10.1515/cog-2013-0021>
- Kendon, A. (2004). *Gesture: Visible action as utterance*. Cambridge University Press.
- 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)
- Kopecka, A. (2006). The semantic structure of motion verbs in French: Typological perspectives. In M. Hickmann & S. Robert (Eds.), *Typological Studies in Language* (Vol. 66, pp. 83–101). John Benjamins Publishing Company. <https://doi.org/10.1075/tsl.66.06kop>
- McNeill, D. (1992). *Hand and Mind: What Gestures Reveal about Thought*. University of Chicago Press.
- McNeill, D. (2005). *Gesture and thought*. University of Chicago Press.
- McNeill, D., & Duncan, S. D. (2000). Growth points in thinking-for-speaking. In D. McNeill (Ed.), *Language and Gesture* (1st ed., pp. 141–161). Cambridge University Press. <https://doi.org/10.1017/CBO9780511620850.010>
- Müller, C. (2014). Gestural modes of representation as techniques of depiction. In C. Müller, A. J. Cienki, E. Fricke, S. H. Ladewig, D. McNeill, & S. Tessendorf (Eds.), *Body—Language—Communication: An international handbook on multimodality in human interaction*. De Gruyter Mouton.
- Stam, G. (2006). Thinking for speaking about motion: L1 and L2 speech and gesture. *IRAL - International Review of Applied Linguistics in Language Teaching*, 44(2). <https://doi.org/10.1515/IRAL.2006.006>
- Stam, G. (2018). Gesture as a window onto conceptualization in second language acquisition: A Vygotskian perspective. In J. P. Lantolf, M. E. Poehner, & M. Swain (Eds.), *The Routledge Handbook of Sociocultural Theory and Second Language Development* (Routledge, pp. 165–177).
- Talmy, L. (2000). *Toward a cognitive semantics* (Vol. 2). MIT Press.