

Blending spaces to compose speech and gesture meaning

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Multimodal speech-gesture communication effortlessly integrates multiple meaningful systems. A hand rising, as a speaker says *things improved*, integrates with speech by metaphoric interpretation of the vertical spatial dimension; if the speech were *the ball flew past*, the hand's trajectory might iconically represent the ball's spatial path. Building on the work of signed-language analysts (starting with Liddell [1998], Taub [2001]), a mental spaces network model has been proposed (since Parrill and Sweetser 2004) to model the integration of spoken and gestural meaning, including iconic and metaphoric mappings.

This paper proposes a larger formal space-blending model, mapping discourse loci and bodily affordances into the network, for a fuller account of the co-emergence of meaning from language and bodily motion. The primary database is a sample corpus from interviews and talk shows in the Red Hen captioned television corpus.

The systems involved in this blending network include:

- (1) conventional linguistic meaning and its contextual interpretation: **speech content** integrates with the rest of the multimodal communicative activity.
- (2) inherent **meaningful aspects of body-inhabited space**: the meanings of bodily location in EGO-centric deictic space or of up/down in gravitic space, the meaningfulness of space in front of the body as action-space.
- (3) **iconic, metonymic and metaphoric mappings** onto these spatial structures: an upward gesture could literally iconically depict a described motion, or metaphorically refer to Improvement (GOOD IS UP).
- (4) spatial meaning developed from the history of discourse: **pointing at Topic loci** during speech, and **recurring use of once-established spatial areas/loci** to reanimate/maintain discourse reference.

One speaker, e.g., points upwards in talking about *abstract* concepts, and downwards in mentioning "concrete" data. The speech referents are the data and the concepts, not the spatial loci pointed at. The gesture builds iconic and deictic blends: it *depicts* upward motion away from Ego action-space, and deictically *points* at a higher location. This feeds a metaphoric blend of UP (source frame) with the target frame ABSTRACT (ABSTRACT IS UP and LESS ACCESSIBLE, CONCRETE IS DOWN and MORE ACCESSIBLE). That blend is prompted by and integrated with the linguistic references to abstraction and concreteness. Later, the speaker, re-referring to the previously-mentioned abstract concepts, re-points to the same location. This re-activates the iconic, deictic and metaphoric blends. It also blends the current point-locus with the *speech referent* (the *relevant* abstract concepts, not just "abstractness") *previously* associated with that locus. Previous uses of space in discourse make that space meaningful for later reference.

Reference to gestures as deictic OR iconic OR metaphoric are common, but this neglects the multi-layered blending structures. Metaphoric gestures commonly iconically represent the source domain, which then metaphorically blends with the target.

This virtuosic multimodality is utterly pedestrian. Listeners/viewers effortlessly follow such gesture-speech blends, even ones involving gestures representing two different bodily agents and viewpoints (cf. Dudis [2004] on ASL; Sweetser and Stec [2016], Sweetser [2013, 2023] on gesture). Even "simple" and "obvious" gestures involve several layers of blending, as seen above. This constant enactment and interpretation of very complex mental-space blends is all done by a single space-inhabiting body.

References.

- Dudis, Paul. 2004. Body-partitioning and real-space blends. *Cognitive Linguistics* 15(2), 223-238.
- Liddell, Scott. 1998. Grounded blends, gestures, and conceptual shifts. *Cognitive Linguistics* 9(3), 283-314.
- Parrill, Fey and Eve Sweetser. 2004. What we mean by meaning: Conceptual integration in gesture analysis and transcription. *Gesture* 4:2, 197-219.
- Sweetser, Eve. 2013. Creativity across modalities in viewpoint construction. In Mike Borkent et al. (eds.), *Language and the creative mind*. Stanford CA: CSLI Publications. 239-254.
- Sweetser, Eve and Kashmiri Stec. 2016. Maintaining multiple viewpoints with gaze. In Barbara Dancygier, Wei-lun Lu and Arie Verhagen (eds.), *Viewpoint and the fabric of meaning: Form and use of viewpoint tools across modalities*. Berlin: Mouton de Gruyter. 237-257.
- Sweetser, Eve. In press. The meaning is in the body(-space) as much as in the hands. In Terry Janzen and Barbara Schaffer (eds.), *Signed language and gesture research in cognitive linguistics*. Berlin/Boston: Mouton de Gruyter.
- Taub, Sarah. 2001. *Language from the Body*. Cambridge University Press.