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Proceedings of the Annual Meeting of the Cognitive Science Society

Title

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Permalink

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Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 37(0)

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Publication Date

2015

Peer reviewed

Gestures in the TV News reflect mental number space: "Tiny" and "low" numbers

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Abstract: Past research suggests that people think about numbers in terms of multiple spatial mappings. For instance, they think of "more" as "bigger" or "higher" (e.g., Andres et al., 2008; Sell & Kaschak, 2012). Here, we investigate mental number space by looking at naturally occurring co-speech gestures. Using the TV News Archive (archive.org/details/tv), we selected a random sample of 1,320 videos containing the phrases "tiny number," "huge number," "high number" and "low number," of which 314 had associated manual gestures. Our analysis shows that with "tiny number," speakers produce pinching gestures; with "huge number," they move their hands outward; with "high numbers," the palms are oriented and move upward; and with "low numbers," the palms are oriented and move downward. Speakers did not gesture systematically along the horizontal axis. This work provides new insights into how people's spatial conceptualizations of numbers shape communicative practice in naturally occurring discourse.