

Using language to make sense of infinite space

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Outer space presents a particular challenge for human understanding, as it exists far beyond the scale of ordinary human experience. Yet people routinely talk about it, reason about it, and imagine interacting with it. This talk draws on my PhD thesis *Space, SPACE, space: An Inquiry into the Construal and Conceptualization of Outer Space* and explores how language provides tools for making sense of outer space and its phenomena. Across five empirical studies, the results show that language about space remains strongly grounded in embodied human experience, indicating that even when referring to an environment fundamentally different from Earth, people rely on familiar linguistic patterns that scale space down to human experience.

The talk focuses in particular on findings from a study of popular science books about space. In this material, authors frequently employ metaphor to make extreme scales and abstract processes intelligible. Metaphors are used not only to conceptualize the vastness and apparent lack of boundaries in space, but also to describe phenomena at the opposite end of the scale, such as the Big Bang and the smallest building blocks of the universe. These metaphorical constructions illustrate how language bridges the gap between human-scale experience and phenomena that lie far beyond it.

Taken together, the findings suggest that language functions as a cognitive tool for making sense of outer space. Furthermore, by examining how space is construed and conceptualized in language, we might gain insight into the ways in which people make sense of other environments, entities, and processes that exist far beyond the scope of ordinary human experience.