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Carving object representation at its multi-level joints

We can represent and distinguish thousands and thousands of objects, and we have detailed knowledge about them -- what they are called, what they look like, how to interact with them, and where to find them in the world. What are the major dimensions that organize object representation in the mind and brain? In Part 1, I will present results showing a large-scale organization of object responses spanning the entire ventral and lateral occipito-temporal cortex, based on the core dimensions of animacy and size. In Part 2, I will compare how different possible representational spaces of shape, action, context, and function can predict neural response patterns. Together, these results suggest that object cortex, just like early visual cortex, has structure that can be explained at multiple spatial scales. I will argue that understanding this multi-scale representation is valuable for inferring the nature of the underlying cognitive architecture.