

Object Perception in a Multimodal Context

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In a unimodal context, perceptual segmentation is the drawing of boundaries. Visual objects are differentiated from others by chromatic boundaries; tactual objects by boundaries of texture, hardness, and other haptic properties; auditory objects by complex spatiotemporal melodic and harmonic discontinuities. But when we consider *natural* objects—in other words, *material* objects—such boundaries are not ontologically fundamental. The boundaries of material objects are defined by the material cohesion of atoms or, in the case of organisms, by biological unity. Material objects are perceived in multiple modalities—I can see a mango, feel *it* in my hand, hear *it* when it falls to the ground, etc. The multimodal perception of such objects demands cross-modal binding of unimodal boundaries. The thesis that I develop in this paper is that cross-modal binding is generally dictated by the properties of material objects.