
Visual perception involves “event type” representations:
The case of containment vs. occlusion

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Abstract (148 words)

Recent infant cognition research suggests that our core knowledge involves “event type” representations: during perception, the mind automatically categorizes physical events into broad types (e.g. occlusion and containment), which then guide attention to different properties (e.g. with width processed at a younger age than height in containment events, but not occlusion events). We tested whether this aspect of infant cognition also structures adults’ visual processing. In 6 experiments, adults had to detect occasional changes in ongoing dynamic displays that depicted repeating occlusion or containment events. Mirroring the developmental progression, change detection was better for width vs. height changes in containment events, but no such difference was found for otherwise equivalent occlusion events — even though most observers were not even aware of the subtle occlusion/containment difference. These results suggest for the first time that event-type representations operate automatically as part of the underlying currency of adult visual cognition.

Keywords

Event Perception, Change detection, Core knowledge, Naïve physics