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Belgrade, Serbia
24–28 August 2014

Abstracts

Thursday

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Wednesday

◆   **Uncovering the functional role of infants' biases in viewpoint selection during object**
80   **exploration**
A F Pereira[1], E Sousa[2], I C Lisboa[1], L B Smith[3], K H James[3], J A Santos[1,2] ([1]CIPsi, School of
Psychology, University of Minho, Portugal; [2]Centro Algoritmi, University of Minho, Portugal;
[3]Psychological and Brain Sciences, Indiana University Bloomington, USA;
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As we move objects close to us, and act on them, we generate dynamic views. Recent studies have
examined the viewpoints that infants select during free play and found large developmental changes
in dwell time distribution, namely an increasing preference for orienting objects on or around planar
views – i.e. viewpoints where the main axis is parallel (foreshortened) or perpendicular to the line of
sight. This bias is characteristic of mature viewing and was found to promote more efficient learning.
The functional role of this active viewing bias is unknown. We investigated two general properties of
object views that seem relevant: (1) main axis expansion/foreshortening, and (2) instability – related to
dynamic viewing, where rotations around planar views typically yield larger visual changes. There were
two key results: (1) main axis is typically maintained in view (infrequent foreshortening) – this suggests
that elongation is a distinctive property of preferred views and supports other evidence that points to the
main axis as an important structural property; (2) planar views correspond to more stable periods of
the object manipulation – this suggests that sampling planar views corresponds to moments of focused
attention and perhaps learning of a static view is occurring.