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“What” is happening in the dorsal pathway - a new view of cortical vision

The cortical visual system is almost universally thought to be segregated into two anatomically and functionally distinct pathways: a ventral occipito-temporal pathway that subserves object perception, and a dorsal occipito-parietal pathway that subserves object localization and visually guided action. In today’s talk, I will present accumulating evidence from imaging, behavioral and neuropsychological investigations that challenge this binary distinction and suggest that the dorsal pathway derives object representations, which are dissociable from ventral pathway representations, and that play functional role in perception. I will then suggest that dorsal object representations are not monolithic and follow a representational gradient in which posterior regions contain object representations that support perception, while more anterior regions generate representations underlying visuomotor control of objects. The evidence is consistent with an account in which object perception is not under the sole purview of the ventral system and, instead, favors an alternative account in which both pathways contribute to visual perception.

The lecture will take place on Wednesday, February 8, 2017 at 12:00 in the Auditorium of the "Meim" Building, Haifa University. We look forward to seeing you there.

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