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Visual perception is shaped by motor factors

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ABSTRACT OF THE TALK

The notion that perception - and more specifically visual perception - is shaped by motor factors dates back from the nineteenth century. I will begin by reviewing briefly these early intuitions, as well as the episodic evidence upon which they were based. Then, I will argue that, in order to investigate these factors in a more quantitative way, we need to be specific about their nature, by isolating those peculiar properties of our motor system that permit one to single out biological motions within the broader contest of all physical motions. The emphasis is placed on certain invariance principles obeyed by most end-point movements that may be construed as components of an implicit knowledge that all humans share about their motor productions. Finally, I will review a set of experiments suggesting that this implicit knowledge is indeed brought to bear in a number of perceptual tasks.