

Author's Accepted Manuscript

Visual illusions modify object size estimates for prospective action judgements

Laurie Geers, Mauro Pesenti, Michael Andres



PII: S0028-3932(18)30269-0
DOI: <https://doi.org/10.1016/j.neuropsychologia.2018.06.003>
Reference: NSY6813

To appear in: *Neuropsychologia*

Received date: 22 February 2018
Revised date: 16 May 2018
Accepted date: 4 June 2018

Cite this article as: Laurie Geers, Mauro Pesenti and Michael Andres, Visual illusions modify object size estimates for prospective action judgements, *Neuropsychologia*, <https://doi.org/10.1016/j.neuropsychologia.2018.06.003>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Visual illusions modify object size estimates for prospective action judgements

Laurie Geers¹, Mauro Pesenti^{1,2}, Michael Andres^{1,2}

¹ Psychological Science Research Institute, Université catholique de Louvain, Place Cardinal Mercier
10, Louvain-la-Neuve, Belgium

² Institute of Neuroscience, Université catholique de Louvain, Avenue Mounier 53, Brussels, Belgium

laurie.geers@uclouvain.be

mauro.pesenti@uclouvain.be

michael.andres@uclouvain.be

*Correspondence should be addressed to: Michael ANDRES Institut de Recherche en Sciences Psychologiques Université catholique de Louvain Place Cardinal Mercier, 10 B-1348 Louvain-la-Neuve (Belgium) tel.: +32 10 47 31 45

Abstract

How does the eye guide the hand in an ever-changing world? The perception-action model posits that visually-guided actions rely on object size estimates that are computed from an egocentric perspective independently of the visual context. Accordingly, adjusting grip aperture to object size should be resistant to illusions emerging from the contrast between a target and surrounding elements. However, experimental studies gave discrepant results that have remained difficult to explain so far. Visual and proprioceptive information of the acting hand are potential sources of ambiguity in previous studies because the on-line corrections they allow may contribute to masking the illusory effect. To overcome this problem, we

Download English Version:

<https://daneshyari.com/en/article/7317297>

Download Persian Version:

<https://daneshyari.com/article/7317297>

[Daneshyari.com](https://daneshyari.com)