

# Study questions assumptions about human sensitivity to biological motion

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Humans may not be any more sensitive in detecting biological motion compared with nonbiological motion, concludes a study recently published in *Journal of Vision*, an online, free-access publication of the Association for Research in Vision and Ophthalmology (ARVO).

Dr Eric Hiris of St. Mary's College of Maryland, (St Mary's City, MD, US) contends that although many papers on the subject begin with statements to the effect that humans are particularly sensitive in detecting point-light biological motion, little research has been performed that supports this.

Previous research in this area, according to Hiris, generally has failed to take into account form information in biological motion and/or has used masks that were less than optimal for biological motion.

Using point-light displays, Hiris's study, described in "Detection of biological and nonbiological motion," (<http://www.journalofvision.org/7/12/4/>) compared biological motion to nonbiological motion with and without an underlying form; equated the effectiveness of masks across displays; and presented targets of various sizes within a constant-sized mask area to determine if mask density predicted detection performance.

Hiris concludes that the resulting evidence does not show that humans are better able to detect biological motion if nonbiological motion contains an underlying form, and, in some cases, even if it does not.

"Do researchers sometimes state conclusions in ways that go beyond the data?" asks Hiris. "Specifically, what do researchers mean when they say we're 'highly sensitive' to some aspect of motion? These findings may highlight the need to be careful about how we couch our conclusions."

Source: Association for Research in Vision and Ophthalmology

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