

Review of: "Throwing is affected by self-movement"

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The study is very well conducted, written and reported. However, whilst it is clear that the integration of proprioceptive and visual information is relevant to the perception of distance, and therefore to the throwing task described, the equation provided does not, on its own, explain the phenomenon. To do so would require a dynamic functional model of the human, their internal processing, and the physical set up of the study. This form of theory testing is arguably superior and I explain it within an earlier article (Mansell & Huddy, 2018). I do think that taking a functional, purposive perspective of this experimental set up will be helpful in understanding it. To put it simply, when a person runs towards a basket ball net in a match, the distance between the person and the net reduces and so the functional distance to perceive is reduced by a proportion related to speed of this distance reduction over the period of time it takes to throw the ball. However, in the case of a treadmill, the ground is acting as a disturbance to staying stationary and, without the effort of constantly running, the distance between the person and the basket ball will increase. So, surely it makes functional sense to perceive the distance as further than it is, to compensate for the movement of the treadmill driving the person backwards whilst the throw is made?

I think this formulation, aided by the perspective of perceptual control theory, should help the researchers to explain their findings.