

Here's to Looking Through your Eyes, Kid: How the Perspective Determines the Production and Interpretation of Pointing Gestures

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Pointing gestures are ubiquitous in human communication and often used to guide another person's attention to a specific location. Ironically, however, observers of pointing gestures misinterpret them systematically as being aimed at a higher location than implied by the pointer. I addresses the question whether this misunderstanding can be attributed to the necessarily different perspectives of pointers and observer in real-life situations. To address this question, participants produced and interpreted pointing gestures in a virtual reality setup (HTC Vive). In both tasks, participants assumed the viewpoint of the pointer in some trials and the viewpoint of an observer next to the pointer in other trials. The perspective had a strong effect on the relationship between referent position and the pointer's arm posture for pointers and observers alike. However, the perspective could not fully account for differences in gesture production and interpretation.