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# Perspective-taking, decision making and action selection in referential tasks: Data from combined eye tracking and electroencephalography in an interactive setting

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## Abstract

The ability to take on another person's perspective is a critical social skill that requires the coordination of several cognitive processes. Previous research suggests the consideration of another's perspective depends on factors such as task, culture, and availability of cognitive resources. We present two studies in which participants played a referential game (director task) while electroencephalography (EEG) and eye-tracking (ET) data were recorded. Results showed that participants looked at objects for referential selection, but their gaze patterns and event-related potentials are not indicative of perspective-taking, but reflect cognitive offloading, a behavioral strategy to optimize performance in a demanding experimental setting.

**Keywords:** Interactive, EEG, eye tracking, real world, perspective taking

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