SfN 2015 Abstract

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Abstract

The majority of human interactions with each other require the understanding of others' actions and intentions, and the use of this engagement when making decisions or formulating strategies. However, engagement in a given task under a given set of conditions is far from uniform and measure it typically requires a long period of time. In this study, we used a competitive game-playing task, wherein subjects controlled the ball in a simplified penalty kick against a human or computer goalie, to investigate engagement over a single trial. We predict that trials where participants were more engaged will be reliably differentiable from those where they were less engaged with their opponents, with different patterns of activation found in the Temporoparietal Junction (TPJ) and ... **(?)**. Using clustering and Principal Component Analysis (PCA), we have found trials can be understood as lying along two major axes: position at final time point and y-separation from goalie. These dimensions can be used as proxies for engagement with the opponent: did the player controlling the ball start the trial with a strategy or are they just reacting to the goalie's movements? We predict that activation in relevant social areas, such as the TPJ, can be classified into categories based on these trial-wise measures.

Questions:

- How mention prefrontal cortex?
- I have definitely lost sight of the big picture of this study...
- Feel like I should play up MVPA more...
- I guess I'm not sure that separation can actually be used as a proxy for engagement
- And how about deception?