Title
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Face, body and object representations in the human and dog brain

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Abstract

Neural representations for faces, bodies, and objects have been studied extensively in humans. However, much less is known on how our socio-cognitive niche shaped the evolution of these neural bases. Canine neuroscience allows us to close this gap by studying a longstanding, close companion of humans. Here, we study the neural underpinnings of face, body and object processing in pet dogs (Canis familiaris) and humans. Fifteen awake and unrestrained dogs and forty humans underwent MRI scanning and viewed faces, bodies, objects, and scrambled images. Preliminary results for the dogs indicate temporal regions selective for animate stimuli and a potentially distinct sub-region selective for bodies, and replicate previous findings of category-selective regions in humans. Investigating the multivariate patterns of activation indicates similar categorical object representations in both species. Our findings will provide insights into the potentially convergent evolution of a core cognitive skill in the dog and human brain.