Is a Humless Camel Real? The Role of Knowledge in Visual Recognition

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Introduction

The degree to which perceptual and recognition processes are independent of conceptual knowledge remains an open question. Studies of patients with semantic dementia, a neurodegenerative disorder characterized by the progressive loss of conceptual knowledge, suggest degenerative changes characterized by the progressive loss of conceptual knowledge, suggest degenerative changes marked by the progressive loss of conceptual knowledge, suggest degenerative changes. Knowledge may be impacted by the disease process. By adapting the “over-regular animal task” (OAT) used in studies of semantic dementia for a developmental population, we can evaluate the effect of gaining knowledge in a population with unaffected recognition systems. We found that young children’s performance mirrored that of patients, with incorrect performance in recognition task when the image depicts a prototypic but non-real animal. Suggests selection is influenced by semantic regularities within animal depictions.

Results - Children 3 and 5 years of age

Recogntion (items named correctly)

Conclusions

Performance of children aged 3 to 5-year-old mirrors selections of semantic dementia patients; favoring more prototypic depictions.

Current and Future Directions

Remove need for children to understand “real” vs “silly” distinction through touch selection in change detection paradigm on tablet computer.

Incorporate eye-tracking methodologies to model gaze paths during selection.

References