Deeper Levels of Processing Result in Higher Recognition Accuracy for Inverted Faces

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Introduction

The depth of processing framework postulates “deeper levels” of perceptual analysis are correlated with stronger and more long-lasting memories of a stimulus2-9.

Upright faces processed at a deeper level have higher recognition rates compared to those processed at a shallow level3-10.

Shallow questions ask about the physical appearance of faces.

Deep questions ask about perceived personality traits of faces.

The face inversion effect (FIE) is the significant decrease in face memories of a stimulus

3. A two-way mixed ANOVA found:

- Significant main effect for orientation (F(1,32) = 4.81, p < 0.05).
- Significant main effect for question type (F(1,32) = 161.28, p < 0.001).
- Significant interaction (F(1,32) = 5.47, p < 0.05)

A t-test for independent samples found deep hit rates for upright faces were significantly higher than for inverted faces (t(32) = 2.92, p < 0.05)

More work is needed to explore the mechanisms with which this occurs.

There are competing hypotheses as to why the FIE emerges3,8,9,10, so it is unclear what the deeper levels of processing is operating on within the face.

Future directions:

- Run the experiment again on a larger sample.

References and Acknowledgements

3. Stelmach and Mueller (1977), Bulletin of the Psychonomic Society
5. Pellicano & Rhodes (2004), Psychological Science

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