ABSTRACT

PART 1: THE COMPOSITE EFFECT AND HOLISTIC FACE PERCEPTION

1. INTRODUCTION: THE COMPOSITE FACE ILLUSION
2. THE COMPOSITE FACE EFFECT
3. HOLISTIC PERCEPTION OF INDIVIDUAL FACES
   - *3.1. Holistic face perception*
   - *3.2. Holistic/Configural processing, configuration and parts: some clarifications*
   - *3.3. Inversion*
   - *3.4. How are faces special(ly holistic)?*
   - *3.5. The role of a template derived from visual experience*
   - *3.6. The nature of the holistic face representation*
   - *3.7. Holistic face perception is functional*
     - Inversion (again)
     - Acquired Prosopagnosia
     - Long term impairments in face recognition
     - Gaze-contingency
   - *3.8. Correlating holistic face perception and face recognition performance*
     - Variability in face recognition performance and the rationale for correlation measures
     - (Weak) correlations can be found in the composite face paradigm
   - *3.9. Neuro-functional locus*
     - Capturing a perceptual phenomenon in neuroimaging
     - Human electrophysiology
   - *3.10. Convergent validity*

PART 2: THE MEASURE OF AN ILLUSION

4. THE COMPOSITE FACE PARADIGM
   - *4.1. The basic composite face paradigm*
   - *4.2. Why misalignment?*
     - Back to our Gestalist roots: (lateral) spatial misalignment is theoretically relevant
     - Breaking apart or increasing metric distances?
   - *4.3. Inversion (yet again)*
   - *4.4. Controlling for general effects of alignment*
   - *4.5. 'Different' trials*
     - Why 'different' trials do not give rise to a composite face illusion/effect?
     - Should Signal Detection Theory be used to analyze the composite face paradigm?
   - *4.6. Looking for a response bias*
     - A response bias of perceptual origin
     - Composite face effects can arise without a behavioural same/different response (bias)
   - *4.7. Proportion of same and different trials*

4.8. The importance of response times

4.9. Top and bottom

4.10. Mind the gap

4.11. Can object-based attention account for the composite face effect?

4.12. Other stimulus issues

4.13. Summary and conclusions of part II

PART 3: THE ILLUSION OF A MEASURE

5. THE CONGRUENCY/INTERFERENCE PARADIGM WITH COMPOSITE FACES

5.1. The roots of the congruency/interference composite face paradigm

5.2. The congruency paradigm has a built-in response conflict confound

5.3. Missing a misaligned condition

Interference without integration: two examples

5.4. A congruency effect on different trials reflects part-based processing

Misinterpreting response bias

5.5. Summary

Multiplying the chances to find "holistic processing"

6. GRC'S OVEREXTENDED CONGRUENCY DESIGN: METHODOLOGICAL CONFOUNDS

6.1. Stimulus confounds

Misaligned aligned faces

The width of a circle

Lumping together the top and bottom face halves trials does not help integration

6.2. Change of format confound

6.3. Spatial attention confounds

Lateral shifts of attention for misaligned trials

Switching attention between top and bottom

6.4. A too complex paradigm

6.6. Summary

6.7. GRC's criticisms of the standard composite paradigm: a short rebuttal

7. UNFOUNDED CLAIMS FROM USING THE OVEREXTENDED CONGRUENCY DESIGN

7.1. A decisional locus for holistic processing?

7.2. Prosopagnosia

7.3. Exposure duration

7.4. "Holistic" processing of inverted faces

7.5. Object processing and Visual Expertise

8. GENERAL CONCLUSIONS

ACKNOWLEDGMENTS

REFERENCES