



Recognizing faces across different views: does caricaturing help?

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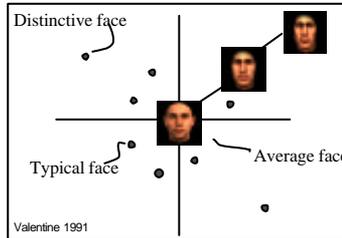
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1. The Caricature Effect



- Caricatures are recognized at least as fast and as accurately as the corresponding veridical representations of faces, often even faster and more accurately.
- This caricature effect is a robust finding, which has been demonstrated employing different tasks and different stimuli, such as line-drawings (Rhodes et al. 1987) and photographs (Benson & Perrett, 1991).
- Usually caricatures have been presented only at test and only in frontal views.
- Face recognition is view-dependent (e.g., Kruse 1981, Hill et al. 1997, Troje & Bühlhoff 1996).

2. Face Space Idea

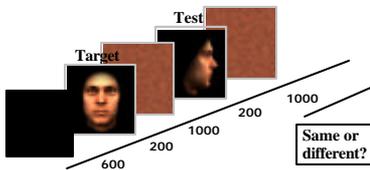


3. Questions

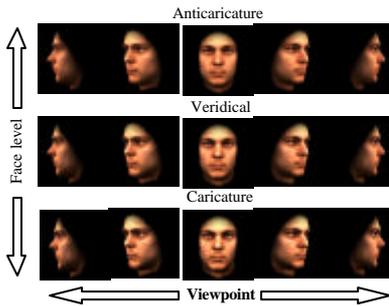
- Does the caricature effect (CE) hold for different views?
- Does the CE generalize across changes in viewpoint between learning view and testing view?
- Can we find a reversed caricature effect (RCE), i.e. do caricatures also help when presented at training (at the encoding rather than at the retrieval)?
- Is the caricature effect limited to memory tasks or can we also observe it in more perceptual tasks, such as face matching?

4. Methods & Materials

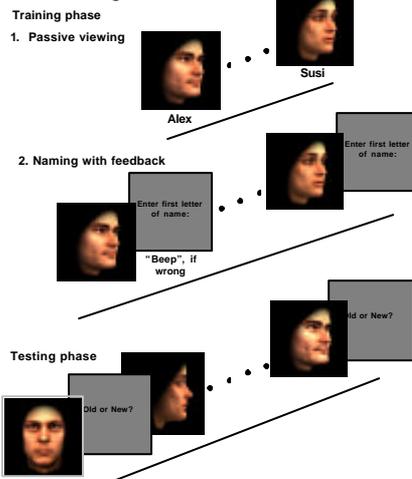
Sequential matching task:



Stimuli:

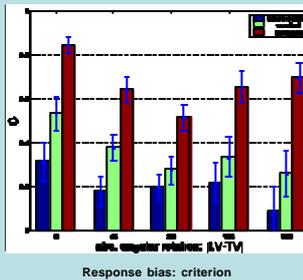
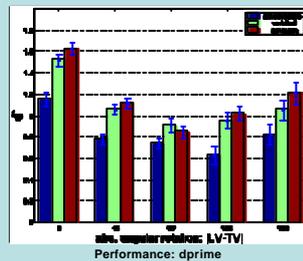


Old / new recognition:

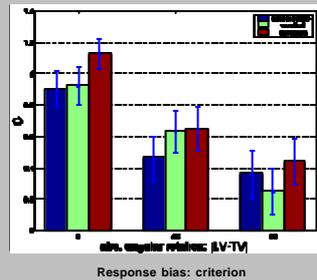
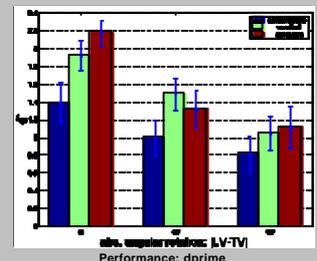


5. Experiment 1 : Sequential Matching

Caricature at test (CE):

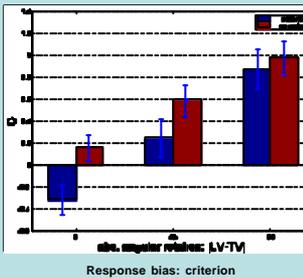
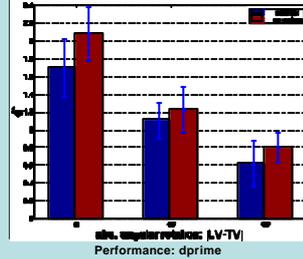


Caricature at training (RCE):

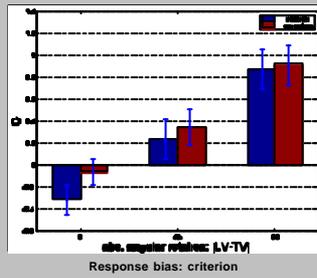
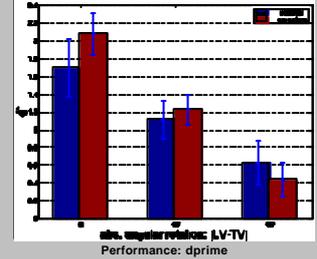


6. Experiment 2 : Old / New Recognition

Caricature at test (CE):

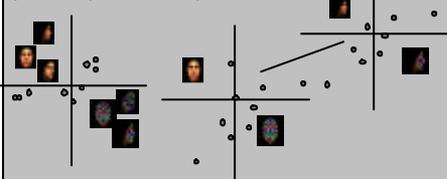


Caricature at training (RCE):



8. Speculations

View-based or individual-based account for the face space model (Newell et al. 1999)?



7. Summary & Conclusions

- Caricature effect present (with $C > V > AC$)
- No interaction between caricature level and views, i.e. CE generalizes across views.
- Criterion: observers are more conservative with caricatures
- Reversed caricature effect present (with $C > V > AC$)
- No interaction between caricature level and views for the sequential matching task, i.e. RCE generalizes across views. But interaction between LV and CL for old/new recognition task, with RCE strongest for profiles, weakest for FF at learning
- Criterion: observers are more conservative with caricatures