

## Figure S1 - Visualization of the average illusory face



To visualize how averaging illusory faces quickly leads to the impression of a face even during prolonged viewing, we sequentially averaged 2,3,...50 illusory face stimuli, once ordered by performance, once ordered randomly. **Top row:** 50 illusory faces sorted by the probability of being selected as face in experiment 1 (as figure 2B). **Second row:**  $n$ -th image depicts average (pixelwise arithmetic mean per color channel) of the  $n$  leftmost faces of top row. **Third row:** 50 illusory faces in random order. **Bottom row:**  $n$ -th image depicts average of the  $n$  leftmost faces of third row. In both scenarios, a small number of illusory face stimuli suffices to evoke the subjective impression of a face in the average stimulus.