Will the quality judgements be influenced by word recognition?

In relation to natural images…

...and abstract art.

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Hypothesis / Predictions

1. **quality judgements will be influenced by word recognition**
    - seeing a word embedded in an image will lead the participant to report a higher quality rating than he would have otherwise

2. **we expect a less severe effect in an MLDS experiment than in a single-stimulus rating task**

3. **we expect a less severe effect in an abstract art experiment than in a beach experiment**

Experimental Design

- Independent Variables
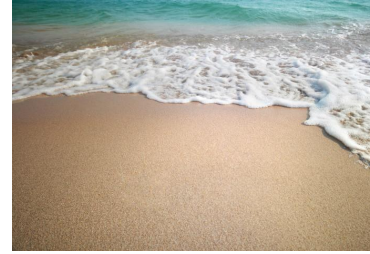   - type of image (abstract or beach)
    - with embedded words (HALLO WELT),
      the same jumbled words (OALHL ETLW)
      or nothing
    - amount of distortion
      (Gaussian blur 5 different levels incl. original)
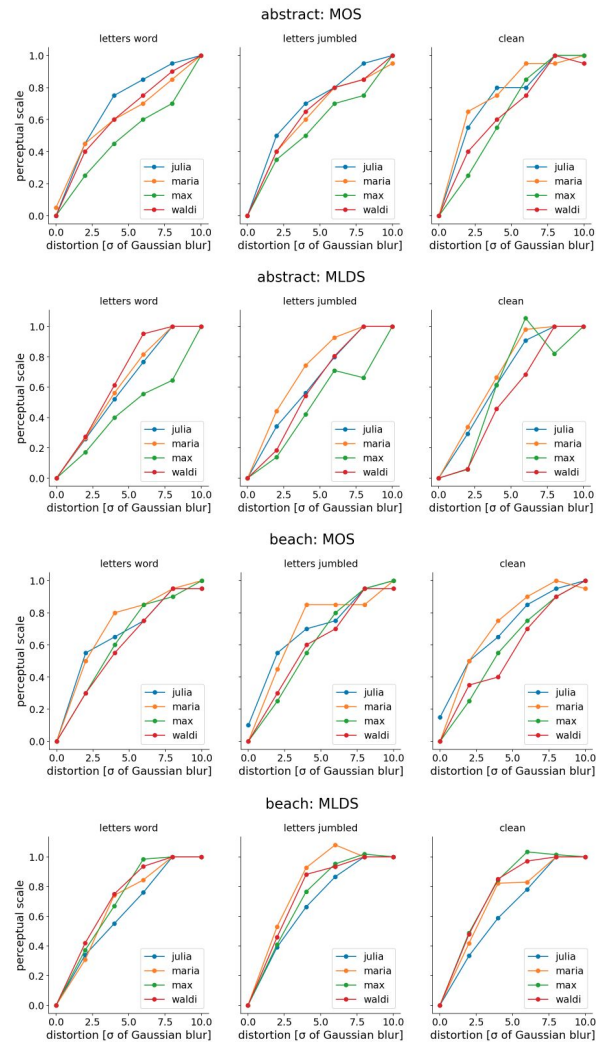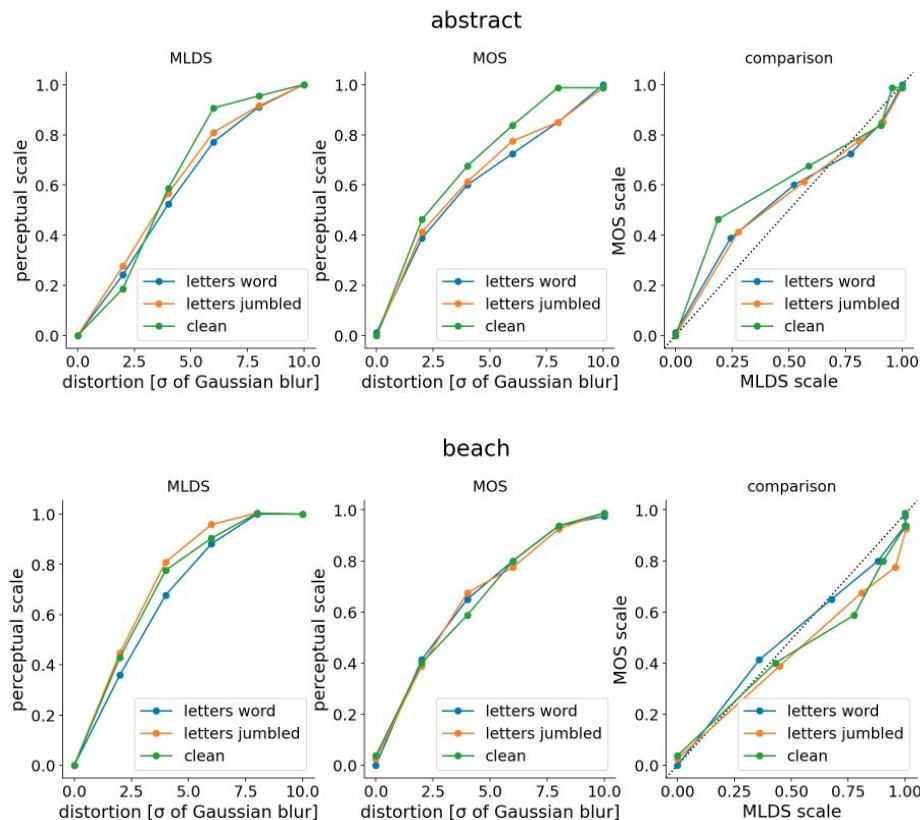

- Dependent Variables
    - perceptual scale

- Experimental Design:
    - rating task: 5 rep. × 2 im. × 3 cond. × 5 dist.   **= 150 trials**
    - MLDS triads: 5 rep. × 2 im. × 3 cond. × binom(5, 3) triads   **= 300 trials**

Results

Interpretation and potential problems

- Interpretation:
  - Word recognition (whether a real word or a mixed word) has no significant influence on the subjective quality judgements
  - Background has no significant influence on the subjective perception of quality
  - I.e. when we see an image, regardless of the background, that has text on it, we will rate its quality just as if it had no text on it

- potential problems:
  - Calibration phase isn't precisely defined - unspecific on duration and thoroughness
  - During the MLDS experiment you had to choose the most different pair -> not intuitive for some participants -> lengthy contemplation -> bias in the result?
  - Different environment during experiment (different monitors with different resolutions, lightning, color calibration etc.)
  - Small granularity in distortion strengths

Open questions

Are there any parameters that do affect by text the subjective perception of image quality? For example...

a. Longer words / whole texts (-> our words may have been too short)
b. Words taking up more space in the images (-> our font size may have been too small)
c. Text "overlayed vs. embedded" (-> our font style matched the background)