# Supplemental materials

#### Stimuli selection procedure

The paintings used in the experiment were selected using a two-part procedure. During the first part, six independent judges (three art experts, and three novices) chose 422 reproductions of figurative paintings from the period between the 15th and 19th centuries from the Internet resources. The judges worked separately, and each of them was to choose 100 of the most beautiful paintings depicting humans. Then, each painting was assessed by the same group of judges on four dimensions: quality (low – medium – high quality of digital reproduction), complexity (simple – medium – complex scene), unambiguity (low – medium – high level of unambiguity of the scene), and dynamics (static – low dynamic – dynamic scene). After selection, the collection comprised 309 high-quality paintings (the resolution of digital versions of each painting was at least equal or higher than 800 pixels in the vertical dimension, color temperature was in the range between 3,300-4,000 K). The paintings depicted medium-complex scenes, the interpretation of which was relatively unambiguous, and the objects presented therein were static or captured in not very dynamic motion. This part was aimed at unifying the set of paintings.

During the second part of paintings selection, thirty-eight students with no formal education in the field of arts independently evaluated the set of paintings selected in the previous stage on the scale "I like - I do not like this painting.". The rating of representational paintings on the scale of liking, to a great extent, correlates with the rating concerning its beauty (.93). Both beauty and liking ratings can also be predicted using the same subjective (meaningfulness, complexity, emotionality, and color warmth) and objective (brightness SD, horizontal symmetry, and RGB component scores) measures (Sidhu et al., 2018). The paintings were presented on a 24" computer screen (1920 x 1200 pixels) twice, in random order. The participants viewed each painting twice because we wanted to balance the impact of previous paintings' judgments on their evaluation and to minimize the effect of accidental button presses. Painting evaluation and time needed to make an assessment were measured from the onset of its presentation and recorded.

All paintings were ranked from the most to the least beautiful, based on average ratings on the liking scale. We assumed that the shorter the evaluation time of a painting, the greater the conviction about the evaluation accuracy. This measure allowed us to rank those paintings, which got the same average beauty ratings. Finally, for further research, two beautiful paintings (most often and most quickly indicated as beautiful), two paintings regarded as not beautiful (most often and most

quickly indicated as not beautiful) and four controversial paintings (equally often indicated as beautiful and as not beautiful) were selected for the experiment. From among the controversial paintings, we chose one more image that we used during the training session.

#### Paintings used for the experiment:

### Beautiful:

[1] Carl Holsøe, Reflections, date unknown, oil on canvas,  $90.9 \times 95.6$  cm, private collection.

[2] James Tissot, The Traveller, 1883–85, oil on canvas, dimensions unknown, Leeds Museums and Galleries, Leeds.

# *Not beautiful:*

[3] Frans Hals, Malle Babbe (Portrait of an old witch from Haarlem), ca. 1628–40, oil on wooden board, 75 × 64 cm, Gemäldegalerie [Picture Gallery], Berlin.

[4] Pierre-Auguste Renoir, Girl Wiping Her Feet, 1890, oil on canvas, dimensions unknown, Collections of Mr. and Mrs. Grover Magnin, San Francisco.

# Controversial:

[5] Caravaggio, Crucifixion of Saint Peter, 1600, oil on canvas, 239 × 175 cm, Basilica of Santa Maria del Popolo, Rome.

[6] Caravaggio, Judith Beheading Holofernes, 1598–99, oil on canvas, 145 × 195 cm, Galeria Nazionale d'Arte Antica, Rome.

[7] Johannes Vermeer, Girl with a Pearl Earring, ca. 1664, oil on canvas,  $44.5 \times 39$  cm, Royal Gallery of Painting (Mauritshuis), The Hague.

[8] Ilya Repin, Unexpected Visitors, 1884–88, oil on canvas,  $160.5 \times 167$  cm, Tretyakov Gallery, Moscow.

# In the instruction:

[9] Alexandre Cabanel, Cleopatra Testing Poisons on Those Condemned to Death, 1887, oil on canvas,  $87.6 \times 148$  cm, Royal Museum of Fine Arts, Antwerp.