

RESEARCH QUESTIONS

- what makes art evocative?
- how does art convey different emotions?
- what attributes make a painting well liked?
- how much does the title of an art impact its emotional response?
- what is the extent to which categories of art evoke consistent emotions?

THE WIKIART EMOTIONS DATASET

www.saifmohammad.com/WebPages/wikiartemotions.html

Annotated 4,105 pieces of art for emotions evoked, amount liked, whether they depict a face

- 10 people per item, crowdsourcing
- 4 styles: Renaissance, Post-Renaissance, Modern, Contemporary
- 22 categories: Impressionism, Figurative art, Realism, etc.

APPLICATIONS

- search paintings evoking the desired emotional response
- automatically detect emotions evoked by paintings
- automatically transform paintings
- identify what makes paintings evocative

THE SOURCE OF THE ART

WikiArt.org: 151,151 pieces of art; 10 art styles; 168 style categories

- notable art in each category is shown in a *Featured* page
- selected ~200 items from each of the featured pages of 22 categories

Style

Contemporary Art: ~2000 pieces

Minimalism

Modern Art: ~60,000 pieces

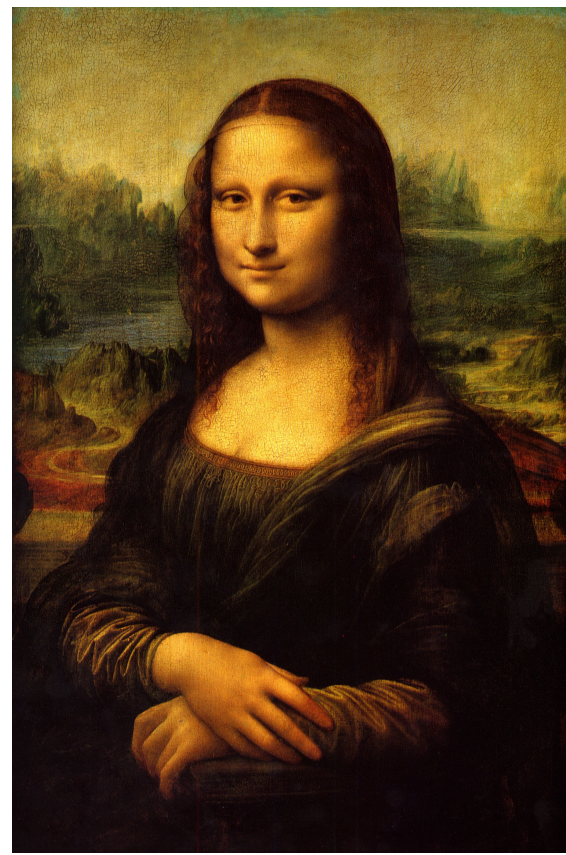
Impressionism, Expressionism, Post-Impressionism, Surrealism, Abstract Expressionism, Cubism, Pop Art, Abstract Art, Art Informel, Color Field Painting, Neo-Expressionism, Magic Realism, Lyrical Abstraction

Post-Renaissance Art: ~ 35,000 pieces

Realism, Romanticism, Baroque, Neoclassicism, Rococo

Renaissance Art: ~6,000 pieces

Northern Renaissance, High Renaissance, Early Renaissance



Title: Mona Lisa
Year: 1504
Artist: Leonardo da Vinci
Style: Renaissance
Category: High Renaissance

Annotations:

Avg. art rating: 2.25 Face, body: face

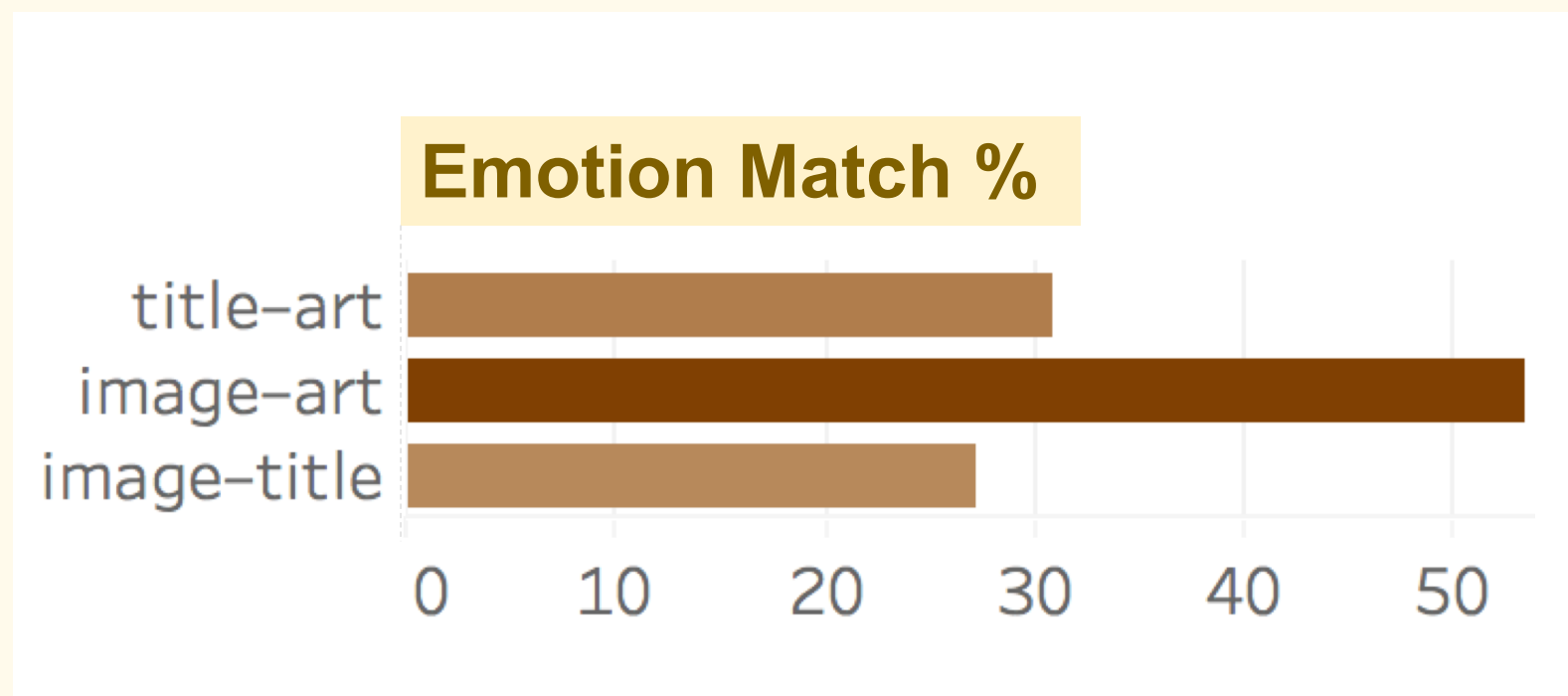
Emotions in image, title: happiness, trust

image: happiness, trust

title: happiness, trust

EMOTIONS EVOKED FROM IMAGE, TITLE, AND ART

- title conveys different sets of emotions than
 - image alone or art as a whole
- even art and image differ in a large percentage of instances



EMOTION ANNOTATIONS

- 20 emotions chosen from art literature
- select all that the art brings to mind
- annotate image, title, art (image, title)

Positive

gratitude, thankfulness, or indebtedness
happiness, calmness, pleasure, or ecstasy
humility, modesty, unpretentiousness, or simplicity
love or affection
optimism, hopefulness, or confidence
trust, admiration, respect, dignity, or honor

Negative

anger, annoyance, or rage
arrogance, vanity, hubris, or conceit
disgust, dislike, indifference, or hate
fear, anxiety, vulnerability, or terror
pessimism, cynicism, or lack of confidence
regret, guilt, or remorse
sadness, pensiveness, loneliness, or grief
shame, humiliation, or disgrace

Other or Mixed

agreeableness, acceptance, submission, compliance
anticipation, interest, curiosity, suspicion, vigilance
disagreeableness, defiance, conflict, or strife
shyness, self-consciousness, reserve, or reticence
surprise, surrealism, amazement, or confusion
neutral

AGREEMENT

Fleiss' κ per emotion per category: from -0.02 to 0.31.

Higher:

- Renaissance, Post-Renaissance
- basic emotions: happiness, love, sadness, anger, fear
- art with face or body

Lower:

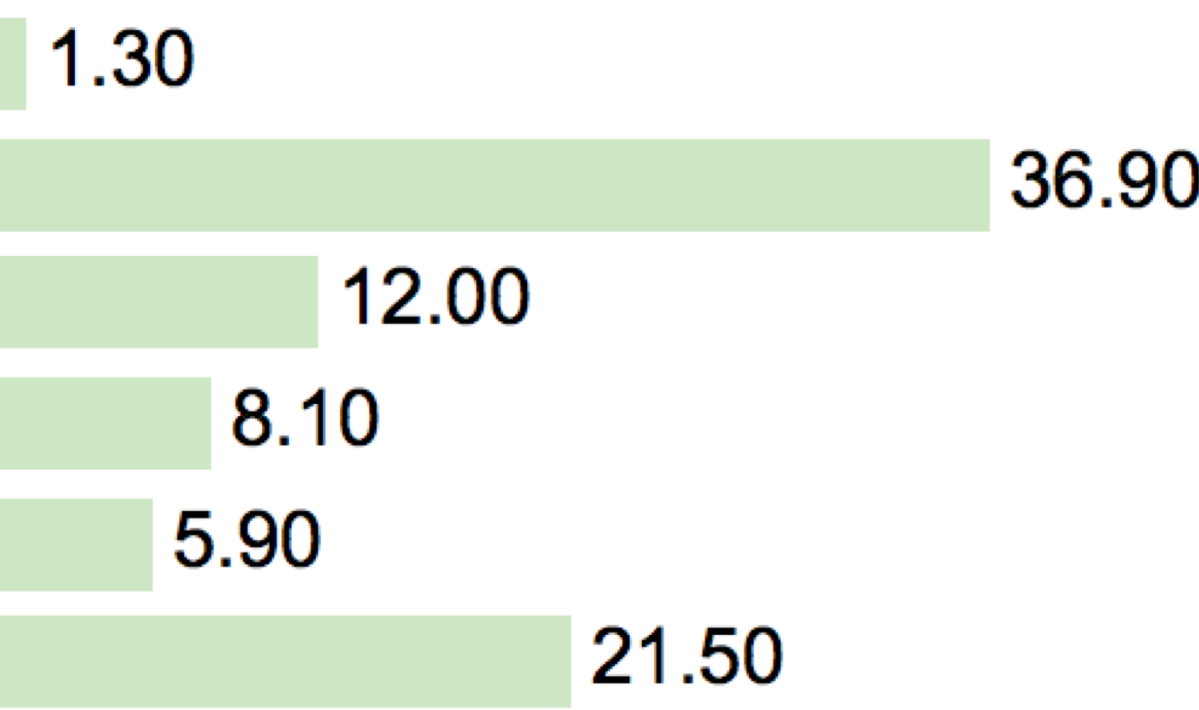
- Modern Art, Contemporary Art
- complex emotions: shame, regret, optimism, etc.
- art with no face or body

LABEL

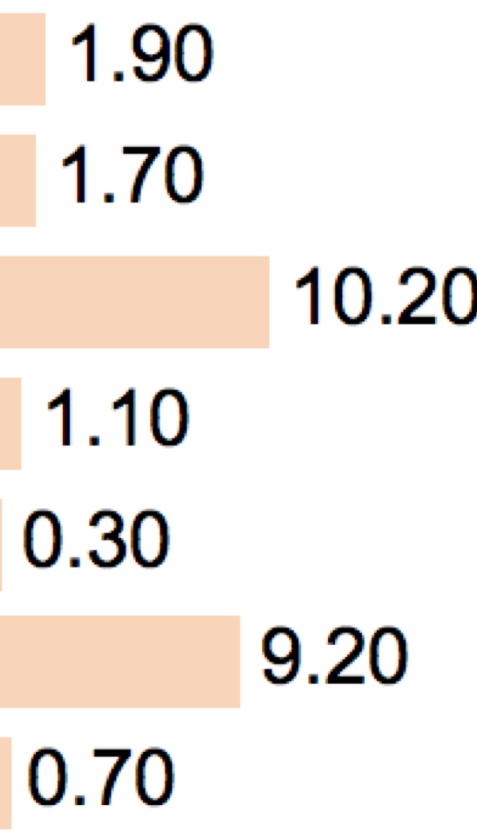
DISTRIBUTION

4 out of 10 say emotion present

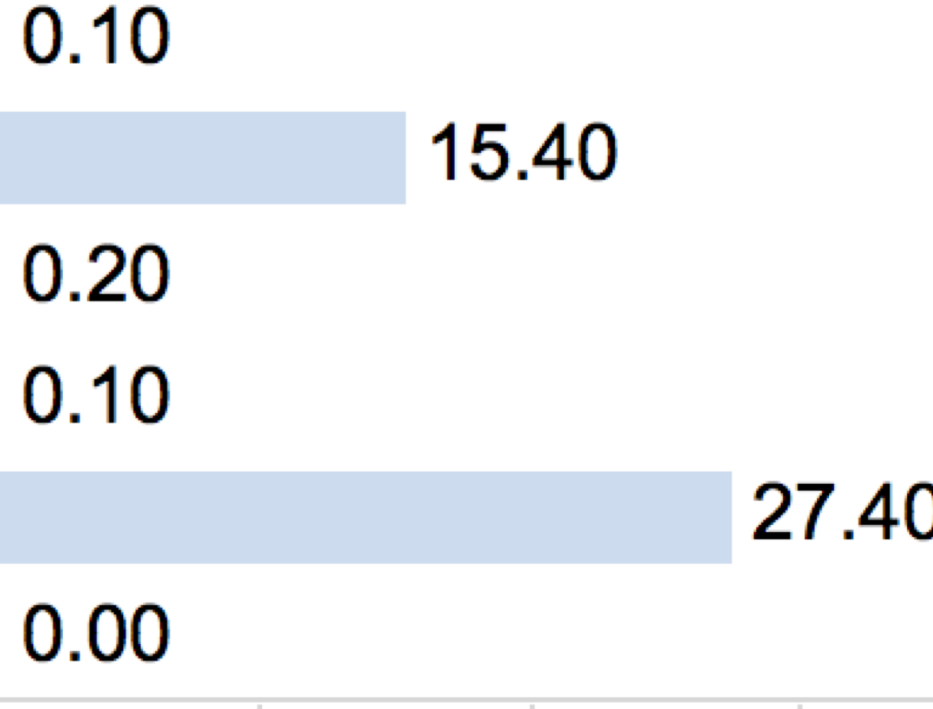
Emotion Distribution %



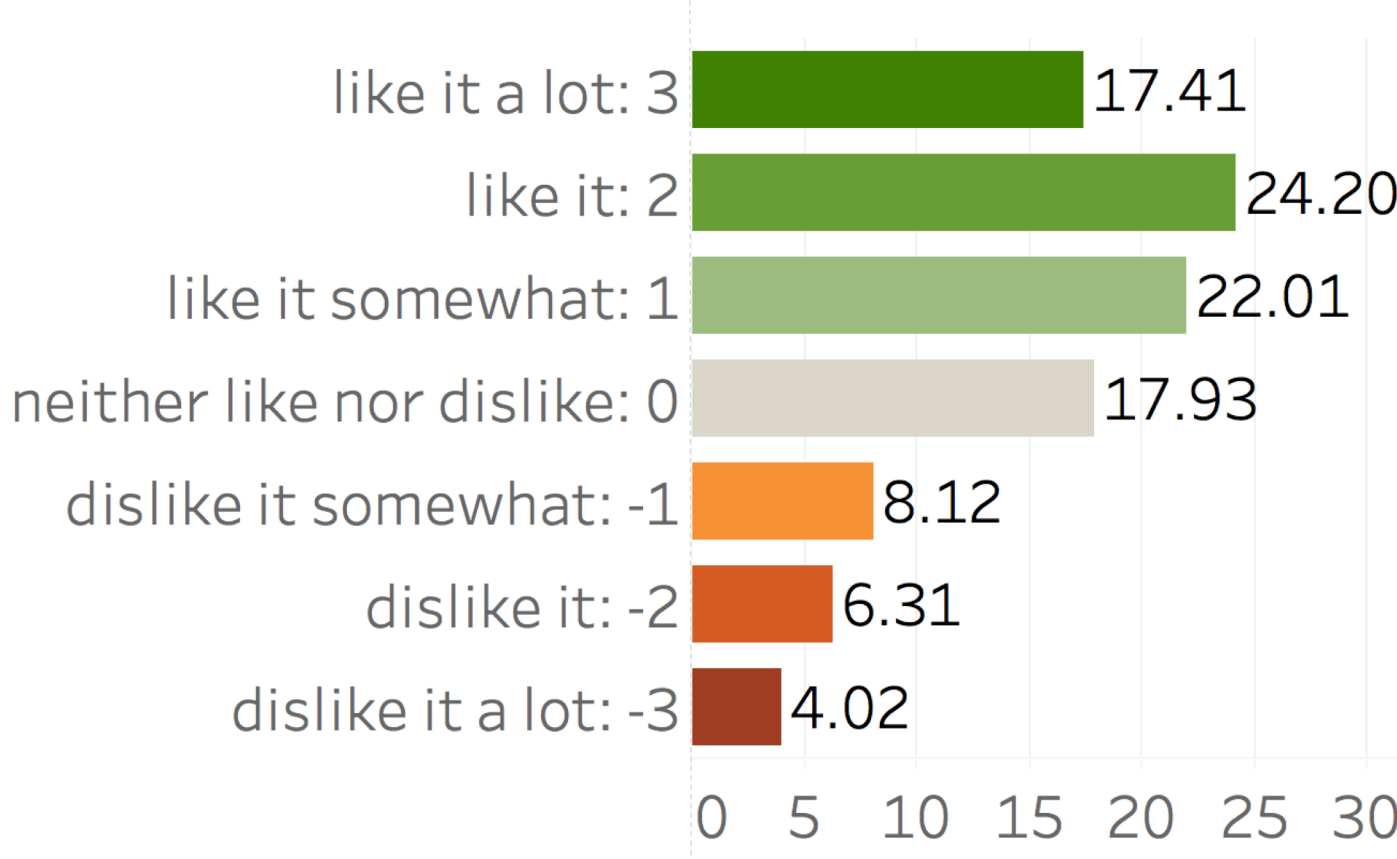
Negative



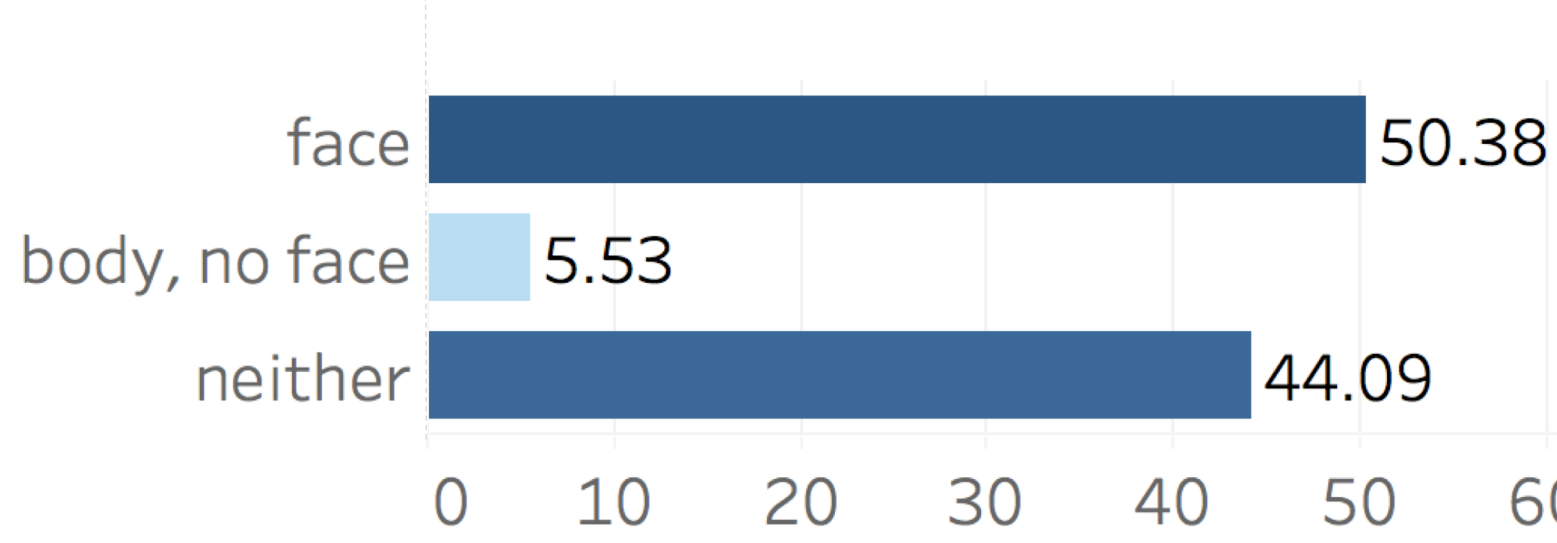
Other or Mixed



Art Ratings Distribution %



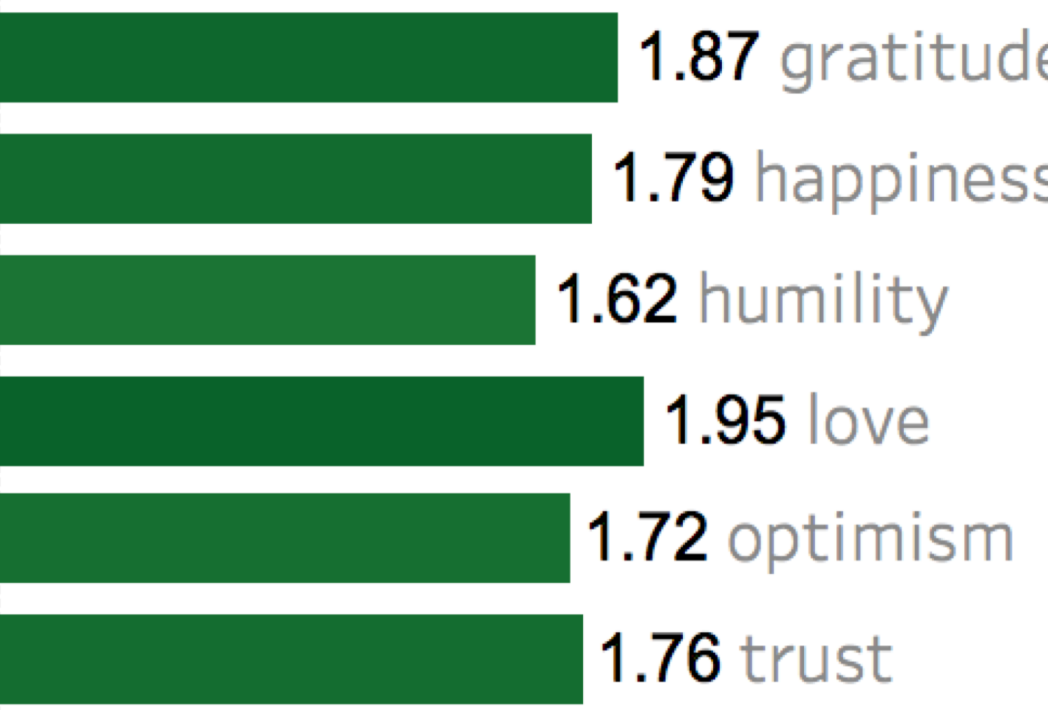
Face-Body Distribution %



AVERAGE ART RATINGS

-3 (dislike a lot) to 3 (like a lot)

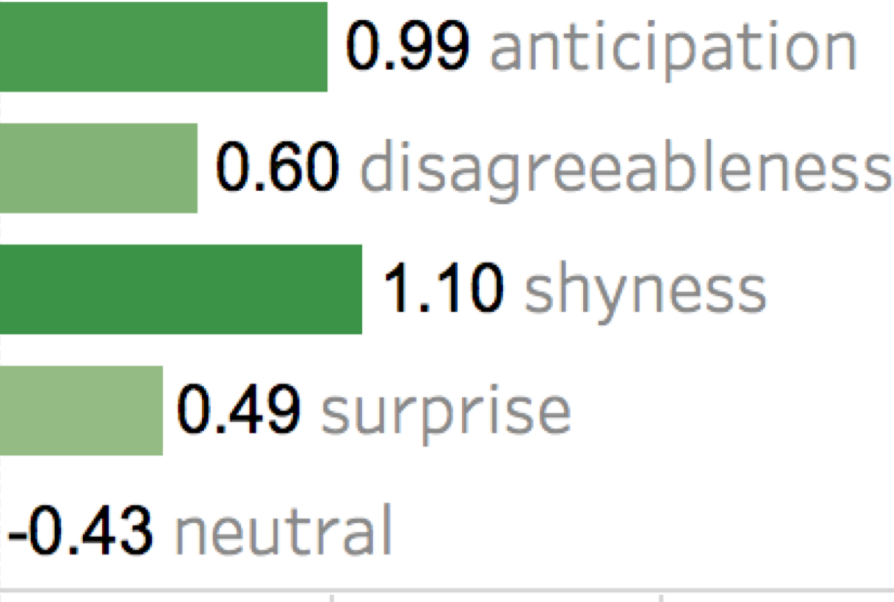
Avg. Art Ratings (by fine emotion)



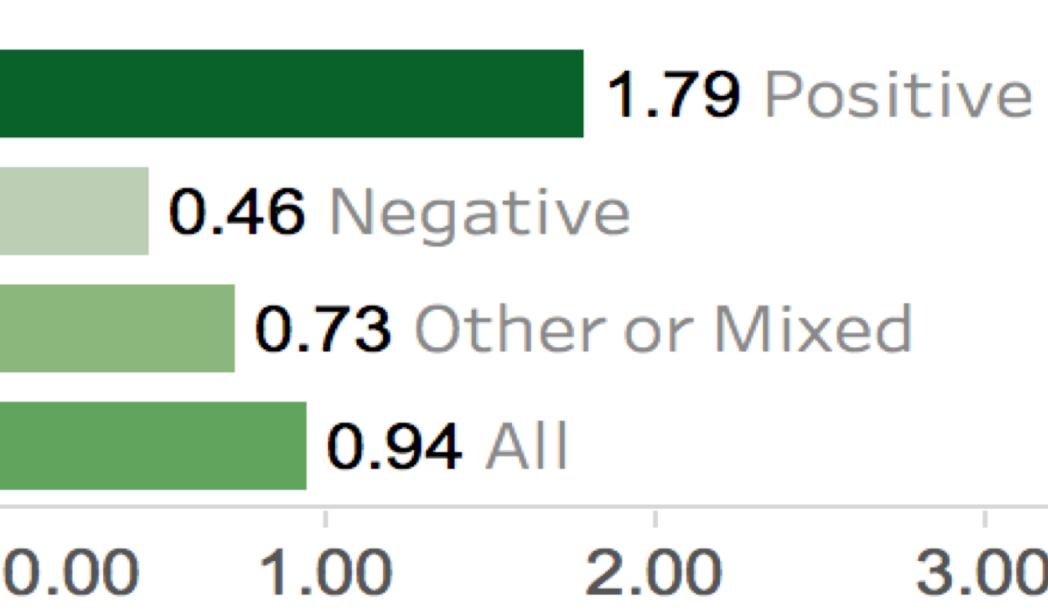
Negative



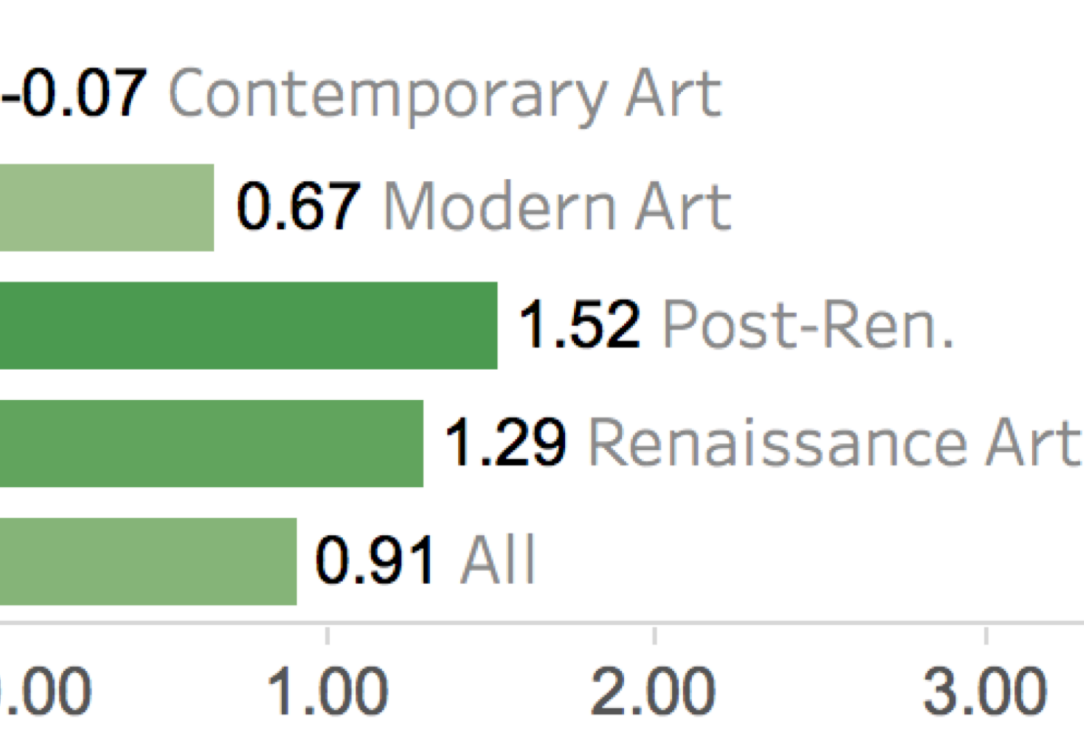
Other or Mixed



Avg. Art Ratings (by coarse emotion)



Avg. Art Ratings (by art style)



WHAT MAKES ART WELL LIKED

- art that evokes positive emotions (love, trust, humility, happiness, etc.)
- Post-Renaissance, Renaissance (Realism, Rococo, Neoclassicism, etc.)
- Romanticism, Neoclassicism, Impressionism evoking love as well as Impressionism evoking optimism



Title: Don Quixote and Sancho Panza in the mountains, XIX cent.
Artist: Honore Daumier
Style: Impressionism (Modern)
Avg. art rating: 0.4
Emotions (image, title): sadness
Emotions (image): fear
Emotions (title): happiness

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Title: Hornet, 1970
Artist: Dan Christensen
Style: Color Field Painting (Modern Art)
Avg. art rating: -1.9 (the most disliked)
Emotions (image, title): anticipation, surprise
Emotions (image): anticipation, surprise
Emotions (title): anticipation



Title: Young mother contemplating her sleeping child in candlelight, 1875
Artist: Albert Anker
Style: Realism (Post Renaissance)
Avg. art rating: 2.8 (the most liked)
Emotions (image, title): happiness, love, trust
Emotions (image): happiness, love
Emotions (title): happiness, love, trust