Framing Aesthetic Judgments
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Brief version

Which do you prefer?

Painters, photographers, and graphic designers regularly face the problem of how to compose their creations in aesthetically pleasing ways. Aesthetic responses to the position and facing direction of objects within rectangular frames were investigated.

Two 2AFC experiments and one free-choice photography experiment demonstrated clear preferences for center position and pointing into the frame.

2AFC Paradigm

- Each screen showed two images of same object at different positions and/or facings
- Subjects were instructed to “choose which one you like more.”

Objects modeled and rendered in Poser 6
Display screens generated in Adobe Photoshop CS2

1. Position and Facing: Setup
Positions: 1,4,7
10 objects: 5 facing with implied motion (woman, man, cat, boat, car)
5 merely facing (chair, flower, teapot, telescope, windmill)
- had no effect

- Objects faced left, right, or forward (head-on)
- Side views of objects only compared to other side views of the object.
- Front views of objects only compared to other front views of the object.

1. More Positions: Setup
All 7 positions used
6 Objects: 2 Vertical (plant, man)
2 Horizontal (car, flower)
Square (rocking horse, teapot)
- had no effect

More Positions: Results

Reverse-facing comparisons:
- Linear trend (p<.01) demonstrates strong facing effects.
- Quadratic trend shows center bias (p<.03)

Same-facing comparisons:
- Linear trend (p<.01) demonstrates strong facing effects.

Position and Facing: Results

Forward-facing comparisons:
- Center position preferred (p<.01)
- Right-facing preferred (p<.05)
- Pointing to the frame > pointing out of the frame (p<.01)
- Center position > pointing out of the frame (p<.01)
- Center position = pointing into the frame

What Next?
- More precision in positional measurements.
- Investigate effects of aspect ratio of objects.

3. Free-Choice Photography: Paradigm and Setup

7 photographs of each of three objects: a teapot, a tape dispenser, and an iron.
Photos unconstrained for zoom and viewpoint.

Each condition was completed for all objects before moving on to the next

7 Conditions: Take the best (most aesthetically pleasing) picture of the object:
1) Unconstrained
2) Off-center, facing leftward
3) Off-center, facing rightward
4) Partially out-of-frame, facing leftward
5) Entirely in-frame, facing leftward
6) Entirely in-frame, facing rightward
7) Entirely in-frame, facing rightward

Free-Choice Photography Results

7 horizontal bins match 7 positions from 2AFC design.
- One third of photos were taken with the center of the object within the center bin
- Overall, 87.5% of photos showed the pointing-into-the-frame effect
- Curves are asymmetrical, consistent with the facing bias

Conclusions & Future Directions

Center position and pointing into the frame strongly affect people’s aesthetic preferences for images in both free-choice and forced-choice settings.

No significant differences for people with formal training in visual arts, suggesting that the “pointing-into-the-frame” effect comes from the way in which people perceive objects and scenes rather than from an explicitly learned rule.

Alternative conceptualization: Object’s “perceptual extent” may differ from its physical extent, and may include additional space in front, such that its perceptual center is significantly forward from its physical center.

Then, pointing-into-the-frame is a natural consequence of the center bias.

The physical center of the object (blue dot) may be separate from the perceptual center (green dot), resulting in “pointing-into-the-frame”

Future 2AFC and photography studies will be more naturalistic and complex by adding objects and examining the effects of multiple objects on center bias and balance.

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