## When the brain adjusts what we see, is it distorting reality?

[From a few feet away, a manhole cover] looks circular, but this is because of some impressive perceptual machinery in your mind. The pattern of light in your eye, on the retina, is, of course, in the shape of an ellipse.

. . .

But there's been a lingering question—how long does your mind hold on to the ellipse? There are two extreme views. The first is that the elliptical shape is abandoned early on in visual processing, replaced with belief that the manhole cover is circular, along with its orientation, color, and so on. The other extreme view is that your mind holds on to the elliptical shape, and you simultaneously sense the ellipse while perceiving the circle. Which raises a question philosophers have argued about for hundreds of years: Do we ever escape the perspective from which we view the world?

A recent <u>paper</u>... suggests that no, we never escape. "We conclude," the researchers wrote, "that objects have a remarkably persistent dual character: their objective shape 'out there,' and their perspectival shape 'from here."

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Perception is full of unimportant information that feels as though it gets discarded. When a light shines on someone's face, for example, we don't notice the shadow cast by the nose unless we are specifically looking for it... This shape-perception study suggests that this information, rather than being lost completely, is still processed.

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