

Do Artists See their Retinas?

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To render a scene realistically, an artist must produce a likeness of the image on their retina, the proximal image, either by not applying visual constancies, or by reversing them in a second step. For example, people who draw more accurately also are less affected by shape constancy (e.g., Cohen and Jones, 2008, *Psychology of Aesthetics, Creativity, and the Arts*, 2(1), 8-19), but this result did not address how constancies are undone. In our first two tasks, subjects adjusted either the size or the brightness of a target to match it to a standard that was presented either on a perspective grid, or within a cast shadow. Non-artists showed good constancy, whereas artists showed less ($n=4$); as before, these results do not distinguish between not applying versus reversing constancies. In our third task, subjects searched for an L-shape among circles and squares. The L-shape could either be adjacent to a circle or in contact so that it appeared to be a square occluded by a circle. The artists' search slopes were flatter than those of non-artists, suggesting more efficient access to the proximal visual representation rather than a second correction to reverse the shape constancy.

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