

What is Normal Vision?

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Developmental and rehabilitation optometrists have, for many years, been struggling with the effort to educate the public on the distinction between eyesight and vision. When giving in-service presentations to parents, occupational therapists, physical therapists, speech language pathologists, or educators, I offer this open-ended question: "What is normal vision?" Invariably there is silence. Some participants begin to squirm in their chairs. To make the group more comfortable, and generate a Socratic dialogue, I'll ask them to consider that we're playing Family Feud and predict what the #1 response to that question would be.

Survey said? As you might guess, the #1 answer is "20/20". After a brief discussion about what "20/20" means, I ask participants to consider what the visual requirement is for visual acuity to obtain a driver's license in their state. The answer is easy, because all but three states have a minimum best corrected visual acuity (BCVA) requirement of 20/40 in the better eye. In New Jersey and Wyoming the minimum requirement is 20/50 in the better eye, and in Georgia it is 20/60. "Well", I ask, "based on your earlier answer that 20/20 is normal vision, do you mean to tell me that states will knowingly grant a license to drive, with its life and death implications, to individuals who do not have normal vision?"

Nor are we alone in these experiences. In a recent editorial in the *Journal of Neuro-Ophthalmology*, Colenbrander and Fletcher wrote: "When asked 'What is vision?', a common answer is that it refers to the ability



to recognize letters on a visual acuity chart. On further reflection, however, this answer appears too narrow (pun intended). When looking through a cardboard tube, one can easily read the chart, but will have problems navigating the room. It is obvious that foveal letter chart acuity vision describes only one aspect of total visual functioning."¹

The year 2020 will soon be upon us, and no doubt that will draw even more attention to the eye chart as a proxy for vision. Notice that even in that nomenclature, we use the term "eye chart" as if to convey that the chart informs us about what the eye sees rather than the totality of vision as it occurs in the brain. Yet just when we thought that our message was getting through that vision is more than 20/20, refractive surgeons co-opted the concept to promote the benefits of having visual acuity sharper than 20/20!

While the effort to educate the public about the difference between eyesight and vision frequently seems futile, it is understandable why the two terms are often used interchangeably. After all, seeing is the particular word used to describe our visual experiences.² Although we hold vision to be a pervasive process, of which eyesight or acuity is only one component, the average person has trouble conceiving of vision as a process. Most people would consider "looking" as the act of directing one's vision, and "seeing" as signifying that vision has occurred. While we

conceptualize vision to be an active, dynamic process, this doesn't resonate with the public. I would venture to say that's because vision is a noun, without any action component. Consider the analog in the auditory field, where there is seemingly less confusion. Hearing clearly encompasses the detection of sound as well as listening, and its action is implicit.

Might we lessen confusion and misunderstanding if we had a verb for vision? Visioning would be a candidate. While an unlikely neologism, it isn't as far-fetched as you might think. I'd prefer to think of it as far-sighted. Perhaps you can think of a better term to convey the totality of vision as an active process, that we can promote in time for the year 2020.

REFERENCES

1. Colenbrander A, Fletcher DC. Editorial - Vision Rehabilitation. *J Neuro-Ophthalmol* 2018;38:135-137.
2. Rogers B. *Perception - A Very Short Introduction*. New York: Oxford University Press, 2017:1.



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