

this book present variants of the further-larger-nearer proposal, but most reject it in favor of accounts ranging from physiological to cognitive explanations.

On the physiological side, one account claims that, owing to accommodative differences in the eyes' lenses, the retinal image of the moon is actually larger when viewed at the horizon (Roscoe). Another account (Enright) attributes the moon illusion to oculomotor adjustments that induce a phenomenon called micropsia. Although the phenomenon is too complex to review here, a sense of how it works can be obtained by doing the following demonstration, called Hering's maneuver: Hold your thumb out at arm's length directly below some far object, such as a picture on a wall. Maintain fixation and focus on your thumbnail while moving your thumb closer to you. Notice how the far object appears to shrink in size so long as focus is maintained on the near thumbnail. There are reasons to believe that the eyes fixate and focus at a nearer distance when viewing the zenith moon than when viewing the horizon moon, thereby making it appear smaller at its zenith.

Most proposals are of a cognitive nature. That is, they discuss forms of information processing that would require cortical neural mechanisms. Many relate the size of the moon to perceived distance in a manner that embeds perceived variables into geometrical laws. A number of authors propose that the moon illusion is the result of a multiplicity of different mechanisms rather than a single cause.

Finally, some contributors question whether the illusion is being approached from the right perspective at all. Haber and Levin, for example, question whether our perception of the moon's size and distance is mediated by the same processes that work under "normal" perceptual conditions. For example, the moon is over 2000 miles in diameter and almost a quarter of a million miles away, whereas most of our perceptual experiences are scaled to the size of our normal purview and actions.

The Moon Illusion contains a great deal of information about space perception that should be accessible to the general reader as well as to the specialist. Hershenson, the volume's editor and a contributor, concludes, "Is more research necessary? Yes, but not on the moon illusion! One lesson to be learned from this volume is that there is little agreement on a general theory of visual space perception. Therefore, a better understanding of visual space perception is probably a prerequisite to an understanding of the moon illusion" (p. 383). I agree with Hershenson's conclusion but doubt that his advice will be followed. The moon illusion is

evident to anyone who watches the skies. It demands attention and evokes a pervasive desire to explain a phenomenon that is both obvious and odd.

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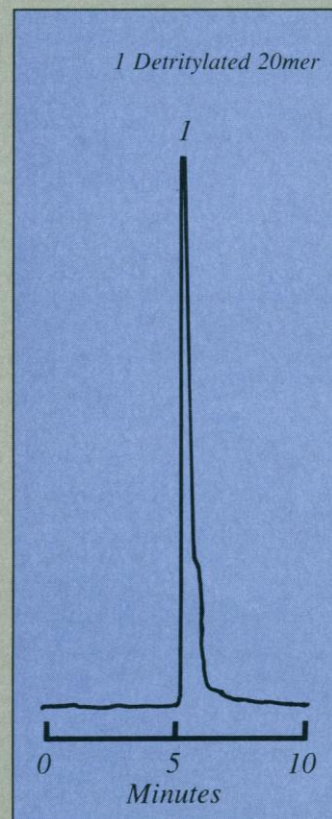
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