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both confusion and clarity. These brief articles provide suggestions for helping students to see well and to represent what they see effectively for their readers.

-DCA/RBW

Building Illusions: Culture Determines What We See

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THE NEXT TIME the moon is full, go outside and take a look. What do you see? If you are like most people in North America, the dark spots on the moon combine to form the image of a man—the Man in the Moon. But people from some cultures see very different things when they look at the moon. People in India and parts of China see a rabbit; in Polynesia they see a woman; Native Americans in the Northwest see a toad; Fiji Islanders see a rat; and Australians see a cat (Harley, 1973).

What people see when they look at the moon is not the only thing affected by culture, however. Researchers have found that people of some cultures do not perceive depth in two-dimensional drawings (Deregowski, 1968; Hudson, 1960; Mundy-Castle, 1966). Figure 1 shows one of the drawings William Hudson used in his study of Bantu factory workers in South Africa (Hudson, 1960). Most of his subjects said the man in the picture was about to spear the elephant, which they perceived as being closer to the man than the antelope. Hudson concluded that the inability of the Bantu to "see" depth in the drawings is a result of their culture.

To explain cultural differences in depth perception, researchers have proposed a "carpentered-world" theory (Segall, Campbell, & Herskovits, 1966). This theory states that in a technologically advanced society, straight lines, corners, and angles are a part of the "natural" environment and thus can provide the proper cues for depth in pictures. People of native populations, who live in round huts among the natural shapes of jungle and grassland, do not have the
experience with simple depth cues—size, overlap, and perspective—and can see pictures in only two dimensions.

![Figure 1. A picture Hudson used in his study. Is the man aiming at the elephant or the antelope?](image)

The two-pronged trident in Figure 2 does not cause the visual confusion for people of some cultures that it does for most Europeans and North Americans (Deregowski, 1973). It is interesting that "primitive" people perceive pictures in a very real and literal way, while "advanced" people fall prey to illusion.

![Figure 2. The two-pronged trident.](image)

Depth illusions can be fun to experiment with in the classroom and lend themselves to discussion about different cultures. Many of the "which-line-is-longer" illusions illustrate how, at least in Western culture, the eye fools the mind. In the Muller-Lyer illusion (Figure 3), line \(a\) appears longer than line \(b\), but they are really the same length.
Figure 3. The Muller-Lyer illusion. Which line is longer?

Figure 4. What the Muller-Lyer illusion suggests.

The carpentered-world theory says that the angled lines suggest different corners of a three-dimensional box—an inside corner in the case of line $a$ and an outside corner in the case of line $b$ (Figure 4). Our brains tell us that the inside corner is farther away than the outside corner and will appear smaller. So even though line $a$ is the same length as line $b$, it appears longer because the mind is fooled into thinking that line $a$ is farther away. Figures 5, 6, 7, and 8 are other illusions that you and your students can experiment with. Knowing the carpentered-world theory not only helps to explain how these illusions work but also illustrates how culture literally affects the way we see things.

Figure 5. Which bar is bigger?  

Figure 6. This "square" is actually shorter on the right side.
Illusions can fool the eye, but a ruler does not lie. The top bar in Figure 7 may appear longer than the bottom one, but they are the same length. Similarly, the women in Figure 8 appear to be different heights, yet each measures the same.

Figure 7. Ponzo’s illusion.

Figure 8. Who is tallest?

Using Color in Presentations

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WIDESPREAD USE of color monitors, increasing use of color projection equipment, and growing use of color printers are making color an important aspect to consider in creating presentations. Using color effectively can significantly improve both the interest and clarity of a presenter's message.

While most of the major presentation programs on the market today have templates created by design experts, users often want to modify or create their own designs for various reasons. Some want to