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This Week

Research Notes

Articles

Cover: George Washington was one of the farmers who raised Leicester Longwool sheep, like the one shown here. Once prized for its blanket-quality fleece, this breed is today endangered globally. Some 5 percent of livestock breeds go extinct annually—eliminating genes for traits that might have proved useful to farmers. In hopes of slowing this drain on biological diversity, several institutions are working to preserve today's rare breeds. (Photo: The Colonial Williamsburg Foundation)

Departments

SCIENCE NEWS is published by Science Service, a nonprofit corporation founded in 1921. The mission of Science Service is to advance the understanding and appreciation of science through publications and educational programs.

Letters

Gotcha!

Microdevices might indeed do all those exotic deeds you describe ("From Microdevice to Smart Dust," SN: 7/26/97, p. 62), but perhaps with the inevitable unintended consequences: universal silicosis from all that dust.

Ben Johnson
Adjuntas, Puerto Rico

Astronomical gaffes

I noticed a couple of errors in "Galileo Explores the Galilean Moons" (SN: 8/9/97, p. 90). It is well known that Galileo discovered the moons of Jupiter on Jan. 7, 1610, with a telescope of about 30X, not on Jan. 10 with a telescope of 1,000X. Also, Jupiter officially has 16 moons, not 14.

Kevin Conod
Newark Museum
Newark, N.J.

You are correct. In his "Sidereal Messenger," Galileo writes, "Finally . . . I progressed so far that I constructed for myself an instrument so excellent that things seen through it appear about a thousand times larger and more than 30 times closer. . . ." In other words, as astronomy historian Owen Gingerich of the Harvard-Smithsonian Center for Astrophysics in Cambridge, Mass., notes, the telescope that Galileo built made objects appear 1,000 times larger because it appears to bring an object about 30 times closer.

Regarding the other matters, Jupiter indeed has 16 known moons, and Galileo made his momentous discovery of three starlike objects on Jan. 7, 1610. He later found a fourth; together, they constitute the four Galilean moons of Jupiter.

—R. Cowen

Bored babies?

The apparent failure of 14-month-olds, in contrast to younger and older children, to discriminate between some speech sounds need not mean that they lose and later regain a perceptual ability ("Wordy tots ignore some speech sounds," SN: 7/26/97, p. 54).

Perceptions can indeed change with maturation and experience: Babies can detect some phonemes that adults cannot. However, perceptions can also be selectively ignored when irrelevant to the task at hand: Toddlers have difficulty learning color names, despite color's perceptual salience, because they expect words to refer to objects or events. Unfortunately, habituation-based experiments do not distinguish between babies' inability to detect a stimulus change and their simply finding the change uninteresting.

The researchers' findings are made no less intriguing by the notion that, at various states in the language acquisition process, young learners shift their focus of attention despite stable perceptual capabilities.

Phyllis Koenig
New Brunswick, N.J.