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Cover: What causes creativity? During a recent symposium, Linus Pauling, sculptor George Segal and other scientists and artists shared their most imaginative moments of discovery. These kinds of personal portraits guide psychologists in their explorations of the creative psyche. (Illustration: Melvin L. Prueitt/Los Alamos National Laboratory and the Albuquerque Art and Science Exhibition)



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Letters

The Asian advantage

In Dr. Miura's evaluation of the math achievement of U.S. and Asian schoolchildren ("Asian languages aid mathematics skills," SN: 9/19/87, p.183), was no thought given to the use of the abacus? It easily explains the Asian children's knowledge of the "10" concept.

"Johnny" is chided for counting on his fingers while Asians improve on a logical function.

Catharine Coburn
Canton, Ohio

The Chinese abacus is based on the number 10, says Miura, but the Japanese abacus is based on 5 and Koreans do not use an abacus. She adds that first-graders, who made up her study, typically have not yet used an abacus.

— B. Bower

Back to the future?

I read with interest "Big Telescopes on a Roll" (SN: 9/12/87, p.170), and thought the following quotation of interest:

To have made the 6-foot specula of equal proportionate stiffness, either they should have been enormously heavy, or the material should have been so disposed as to give greater stiffness than when simply cast into the shape of a solid disc. Some years ago it was ascertained by experiments, but on a small scale, that it would be practicable to dispose of three-fourths of the material of a speculum so as to secure a great increase of stiffness; the form adopted was a system of hexagonal cells.

This is from a paper by the Earl of Rosse in the *Philosophical Transactions of the Royal Society* for the year 1850. Of course, the "specula" in use at the time were made of metal, and the technical achievements of modern glass-mirror construction are obviously far beyond those of the last century. However, it is interesting how many ideas,

such as this honeycomb construction, are older than one might think.

N.A. Sharp
Tucson, Ariz.

Case of the cup-muncher

The "Bizarre bezoar tale" (SN: 9/19/87, p.190), in which a man who swallowed pieces of Styrofoam developed a mysterious concretion in his stomach, might simply be the case of a compulsive nibbler with incipient diabetes. Acetone levels in some diabetics can be so high that its odor can be detected on the breath. Styrofoam dissolves instantly in acetone. Acetone is also produced by fermentation during normal digestion of fruits.

If Styrofoam cup bits are softened by acetone in digestive juices, they will adhere and consolidate into hardened polystyrene as the acetone concentration is reduced by the remaining drink from that cup, this solvent being highly hygroscopic and water miscible.

John Chipura
Park Ridge, Ill.

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