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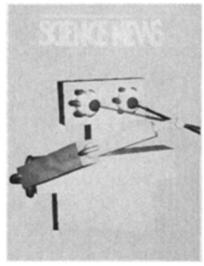
This Week

Research Notes

Articles

Cover: A robot may learn how to see by relating the orientation of its eyes to the position of its arm. This principle is the basis for a novel architecture designed to enable robots to develop eye-hand coordination and a sense of three-dimensional space by themselves. The architecture mimics some of the neural features that appear to play important roles in human learning and perception. (Illustration: M. Kuperstein)



Departments

Letters

Eager for equipment

"Mastering the Microburst" (SN: 3/21/87, p.185) was timely, as we have just completed a "Wind Shear Training Program" and submitted it to the FAA for review. The FAA-mandated training, as referenced in the penultimate paragraph of your article, covers awareness, avoidance and flight maneuvers. Currently, with the absence of any reliable system readily available to detect these microbursts, it is up to the pilot to assess the conditions and proceed accordingly. Educating our pilots to forecast these conditions will have to remain the primary focus even when equipment such as Doppler radar is widely in use, as the system will, at times, be "down."

The future, in this regard, shows promise, and all of us in aviation are eager to see "Wind Shear Avoidance Equipment" in operation at every airport.

Carol Canfield Swearingen
President, Canfield Aviation, Inc.
Houston, Tex.

Language or nonsense?

For the first time in about 20 years of enjoying SCIENCE NEWS, I must take issue with one of your articles. "Memory Boost From Spaced-Out Learning" (SN: 4/18/87, p.244) implies that Bahrick and Phelps believe that a year of college-level foreign language study (assuming nine refresher sessions at 30-day intervals) should result in the mastery, out of context, of only five words (10 percent of the 50 original words) eight years later.

Surely the study in question dealt not with language, or even vocabulary, learning but rather with practice theory applied to nonsense syllables. What difference is there between *"mientras"*=while" and *"ghoti"*=fish" when dealing specifically with participants "who had not lived in Spanish-speaking or bilingual areas"?

Elementary and secondary teachers have known that for practice of new information or skills to be effective, it should be concentrated in short but frequent sessions at first and include review, at intervals, later.

Perhaps this study, then, makes a wonderful point of departure for encouraging our linguistically disadvantaged population to support the teaching of foreign languages starting in the elementary schools. Younger students have more flexible tongues and memories than many of their elders.

Alice C. Grover
Teacher of French and Spanish
Southbury, Conn.