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This Week

Research Notes

Articles

Cover: As shown in this computer portrait, crystallographic studies have revealed in atomic detail the chemical bonds that attach protein fragments to the grooved molecules that help the immune system distinguish "self" from "nonself." The knowledge gained from these structural studies may lead to more effective vaccines, researchers suggest. (Credit: Weiguo Zhang *et al.*)

Departments

Letters

Vitamin C and heart disease

Regarding "White cells and the formation of plaque" (SN: 11/28/92, p.373), Linus Pauling has presented a reasonable explanation for the role of white blood cells in the formation of atherosclerotic plaque.

Pauling asserts that atherosclerosis is initiated by oxidative attack on the arterial walls of individuals whose blood and arterial tissue contain inadequate levels of vitamin C and other antioxidants. This attack is followed by deposition of white cells and other components of arterial plaque in an attempt to heal the wounded artery. In many people, this cycle is repeated over and over until their arteries become clogged with material. Factors such as high concentrations of cholesterol in the blood pose a risk of heart disease only if the walls of the arteries are weakened by vitamin C deficiency.

It is common to dismiss Pauling's ideas about vitamin C and other antioxidants as quackery. However, more and more evidence is emerging that is consistent with his assertions. Those who dismiss them may well do so at their own risk.

David R. Schryer
Hampton, Va.

As the grammatical twig is bent . . .

I read with interest "Grammar skills best learned when young" (SN: 11/28/92, p.383), particularly because my own experience seems at variance with Ms. Neville's study. As a child raised in a small town, my exposure to other tongues was minimal. English was the only language I truly knew.

At age 17, when I started college, I took up German. Determined to become fluent beyond elementary conversation, I paid frequent and exhaustive trips to the language laboratory. At my professor's suggestion, I immersed myself in this tongue, speaking no English for days on end. After four years of language and advanced literature courses, I graduated *magna cum laude* with a German major.

Today, 15 years later, native speakers tell me I have retained fluency in German and have no detectable English accent. I find myself occasionally thinking and dreaming in German. When I speak or write it, I rely on the feel for speech and composition I have developed through years of practice.

Ms. Neville "suggests that exposure to a second language needs to occur before age 11 if a person is to become truly fluent." Her group determined that a special left-brain process for grammatical information develops during this period. Perhaps the kind of linguistic stimulation I went through as an adult can reactivate this mechanism. I am aware of others with similar experiences and suggest that the study's conclusions might be a bit pessimistic.

Terry J. Stone
Birmingham, Ala.