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> Cover: The connection between windblown sand dunes and tumbling dice isn't entirely obvious, but a Caltech researcher is studying the motion of loaded and unloaded dice to gain some insight not only into the practice of cheating but also into the complex problem of granular flow. (Photo: Peter K. Haff)

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# Letters

## **Epstein-Barr: A causative cofactor**

Your phrase "the cancer-causing Epstein-Barr virus" ("Antibody cocktail to fight bacteria," SN: 3/29/86, p. 198) is scientifically inaccurate and socially irresponsible. The vast majority of all humans have been infected by this virus, which is not a sufficient condition for producing illness, much less cancer

At least 10 percent of the U.S. population currently suffers from a systemic and/or neuropsychiatric illness involving the virus. As laboratory tests for such illnesses have become routine, the illnesses are increasingly being diagnosed, and are even viewed as a "fad illness" by physicians having only a cursory knowledge of the subject. Patients have organized a large and growing National Chronic Epstein-Barr Virus Syndrome Association, and articles on the subject are ubiquitous in the popular press.

The Epstein-Barr virus is a cofactor in, or is eactivated by, a remarkable number of human illnesses ranging from multiple sclerosis to major depression. The role of the virus is important enough in infectious mononucleosis and major depression to prompt researchers to say it "causes" those illnesses.

It is not fair to say, even loosely, that the Epstein-Barr virus causes cancer, and given the large number of people who know they have been infected by the virus, that claim is irresponsible. The factual statement is that the virus is a causative cofactor of some cancers (Kaposi's sarcoma, Burkitt's lymphoma, nasopharyngeal carcinoma) in patients who are profoundly immunocompromised, e.g., by

Allen D. Allen Director of Scientific Affairs Center for Viral Diseases, Inc. Northridge, Calif.

### Rationalizing the irrational

The postulates of Radoff's theory of irrationality (Letters, SN: 3/15/86, p. 163) are: (1) Human events and affairs are irrational. (2) Human responses to these are irrational. (3) Human evolution has provided man with the emotional capacity to meet irrationality with proper irrational responses.

Some support for postulate 1 comes from looking at the date above, the notation as used by SN – month, day, year, obviously irrational. The reader acceptance of this irrational date notation supports postulates 2 and 3.

But is it reasonable for irrational man to present a rational theory for the irrational? Fortunately all theories have boundaries.

Ralph W. Lewis Professor Emeritus College of Natural Science Michigan State University East Lansing, Mich.

# Social (science) security

In their letters commenting on the Skinner debate (SN: 3/15/86, p. 163), two of your readers asked, "Who cares?" One in particular wanted someone to tell him why anyone should care what the numbers (relative contributions of genes and environment) are. I suggest they should care because they are paying for it.

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