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Letters

Fickle fields: Other factors?

In the physics community, the health hazards of exposure to electromagnetic fields (EMFs) have been regarded with a lot of skepticism because it is very difficult to come up with an explanation of how any sort of reasonable-strength EMF could generate the forces necessary to disrupt the normal metabolic processes in a living cell. The lack of reliable correlations between the degree of exposure to the EMFs and the observed rates of leukemia is also disturbing.

While reading "Fickle fields: EMFs and epidemiology" (SN: 11/30/91, p.357), I was struck by the fact that leukemia seems to correlate more with living near above-ground power lines than with the degree of exposure to EMFs. Perhaps the cause of the increased cancer risk is something else associated with power lines.

My prime suspect would be polychlorinated biphenyls (PCBs) from leaking transformers. A second chemical associated with power lines

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Cover: Every spring, roughly 20 million Mexican free-tailed bats migrate from their winter homes in Mexico to Bracken Cave, outside San Antonio, Texas, making this single cave the largest concentration of mammals anywhere in the world. Observations at Bracken Cave and in-depth studies conducted at smaller caves in southern Texas are beginning to uncover the secrets of these enigmatic creatures. (Photo: Mark J. Twery/U.S. Forest Service)

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is the creosote used to preserve the wooden poles. As a coal-tar derivative, it has to be full of carcinogens.

Larry Peranich
Senior Scientist
General Atomics
San Diego, Calif.

Power companies here in northern New England periodically apply chemical herbicides to limit weed growth under the towers that carry their lines. I wonder if the power companies in Los Angeles do the same thing and whether this "other EMF factor" has been considered in epidemiologic studies.

L. Carl Pedersen
Hanover, N.H.

Perhaps the EMFs are indirectly involved in cancer induction: High-tension lines apparently fix nitrogen, as demonstrated by the especially lush, green grass that grows under them in fields. Related chemistry might create or activate air- or water-borne carcinogens. I

suppose this hypothesis could reconcile the inconsistent conclusions of epidemiologic studies, particularly if a trace reactant, such as formaldehyde, were involved.

George Meitzner
Pittstown, N.J.

Looks overlooked

There is an overlap area between nature and nurture that is generally neglected ("Same Family, Different Lives," SN: 12/7/91, p.376).

Personality is created within a social context, but the context is not a one-way street. The *appearance* of a person tends to elicit certain reactions from those around, and this elicited reaction feeds back to alter the development of personality. We grow to fit the expectations of others, and those expectations are influenced by how we look.

I wonder to what extent this explains some of the personality similarities found in the separated-twin studies.

Tom Paskal
Montreal, Quebec

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