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Letters

Confound it

In a recent study, more than half of the children and young adults who had blood cholesterol readings of at least 200 mg/dl also reported watching more than two hours of television daily ("Television's cholesterol connection," SN: 11/24/90, p.333). One of the researchers stressed that watching television doesn't cause high cholesterol but may introduce a sedentary lifestyle complemented by fatty "junk" foods. Yet the article did not indicate what facts he had to support that comment.

A similar question might be raised regarding investigations yielding "equivocal" results linking high coffee consumption with coronary artery disease ("Heart worries? Skip that fourth coffee," SN: 10/6/90, p.220). You reported that "a major study points a more certain finger at coffee — but only heavy consumption — as an independent risk factor in heart attacks." Yet there was no mention of the possibility that a tough, hard-driving lifestyle

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Cover: When the crystalline jaws of a diamond anvil crunch together with enough pressure, their underlying lattices of carbon atoms twist into a highly distorted geometry. The flat area of the touching faces increases, and polarized light passing through them changes course, producing colorful "birefringence" patterns like the one shown here. By placing materials within the diamond anvil's unforgiving clench, scientists can simulate subterranean pressures, perhaps even surpassing the squeeze at the center of the Earth. (Photo: Vohra, Ruoff, *et al.*)



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might be related to heavy coffee drinking (but not to tea drinking), and thus might be a confounding, if not culpable, factor.

In these reports, psychological and physiological variables appear inextricably intertwined, resulting in an interpretation of results based on prejudices of the investigators. This makes me wonder how many findings are interpreted as having a physical base when an associated psychological base may have been the related factor, or vice versa.

Aline M. Harrison
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A theory about theories

It might be noted that the claim that scientific theories are "impossible to prove" (Letters, SN: 11/17/90, p.307) is itself not proved. In my view, this theory about scientific theories assumes an altogether too high standard of what a proof must do — namely, prove "beyond a shadow of doubt." If, as in our criminal courts, the standard is instead to prove "be-

yond reasonable doubt," then quite a few scientific theories *have* been proved.

Tibor R. Machan
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Buckeybalderdash

At first glance, the title "Buckeyballs get their first major physical" (SN: 12/8/90, p.357) seemed to promise new information on the horse chestnut. At second glance, the ocular organs of the male deer seemed an equally plausible topic. As I proceeded to the text, "buckeyball" turned out to be a silly diminutive for an even sillier name describing the icosadodecahedral C₆₀ molecule — the newly famous buckminsterfullerene.

Reverence for the memory of Johannes Kepler, who in 1619 gave the icosadodecahedron its name, compels me to suggest that "keplerkugel" might have made a more fitting (and more pronounceable) name.

Jeffrey D. Mueller
Finksburg, Md.