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Cover: This artist's illustration shows a white dwarf star surrounded by an envelope of glowing gas expelled when the star was a red giant. Researchers have now calculated that the high-temperature, high-density interior of a white dwarf gradually freezes into a quantum crystal. (Illustration by G. Dana Berry, Space Telescope Science Institute.)

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Science Service, a nonprofit corporation founded in 1921, gratefully accepts tax-deductible contributions and bequests to assist its efforts to increase the public understanding of science, with special emphasis on young people. More recently, it has included in its mission increasing scientific literacy among members of underrepresented groups. Through its Youth Program it administers the International Science and Engineering Fair, the Science Talent Search for the Westinghouse Science Scholarships, and publishes and distributes the *Directory of Student Science Training Programs for Precollege Students.*

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Letters

Tamoxifen and depression

Regarding the article "Tamoxifen and Informed Consent Dissent" (SN: 11/28/92, p.378), I had a mastectomy in 1988 and was given tamoxifen.

I have no doubt that if I had continued to take this drug, I would not be alive today. One of its serious side effects is depression. With this deep depression, I had made plans to kill myself and had even set a date.

About the end of June 1990, I was getting my prescription for tamoxifen filled and was chatting with the pharmacist about my problems. She told me they could be side effects of the drug. I checked further and found that of the serious adverse reactions possible, I had all but two of them.

I saw my doctor around the middle of July and told him I wanted to stop taking the drug.

He agreed to give it a try. By the end of July, I was so much better even my friends and co-workers could see the difference.

Needless to say, I scrapped my suicide plans.
*Pat Kinnan
Ida, La.*

Risk factors for divorce studies

The study described in "Nature joins nurture to boost divorce risk" (SN: 11/28/92, p.374) showed that divorce occurred "substantially more often among both identical twins than among both fraternal twins." Although this may indicate some kind of genetic bias, I wonder if the common assumption that fraternal twins receive the same kind of background as identical twins is really justified.

It seems at least plausible that identical twins might well be treated, on average, much

more similarly than fraternal twins, who, apart from sharing a birthday, are more or less like a pair of ordinary siblings close in age. Recent studies have shown that the "environmental pressures" within a family can be surprisingly different for different siblings. This effect may be reduced for identical twins.

Also, unless you do one of the notoriously difficult "identical twins reared apart" studies, simply noting that the divorce of parents correlates with the divorce of children says nothing about genetics versus environment. If it is the divorcing parents who do the rearing, either or both factors could be, and probably are, significant.

These difficulties make studies of this sort interesting but not compelling.

*Todd Brun
Pasadena, Calif.*

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As a therapist specializing for 12 years in work with remarried couples, I have studied the backgrounds of well over 500 divorced and redivorced adults (no twins). Over 80 percent of them report a significantly dysfunctional childhood, most involving parental addictions of some sort. Such childhoods usually involve unintentional care-giver abuse or neglect, or both, and produce shame, guilt, fear of abandonment, distrust, and other symptoms in the child.

As adults, these people unerringly pick each other as marital partners again and again, unless they stop denying their early trauma.

Addictions serve to numb intrapsychic pain, which I believe is frequently inherited and — without parental recovery — often passed on.

I've read that some persons may have a genetic predisposition to *addiction*, rather than just to alcoholism. If so, the interactive inherited "characteristics" promoting divorce are (1) benign ignorance and denial of family dysfunction; (2) parental shame and associated feelings; and (3) "addictive" genes.

Peter K. Gerlach
Oak Park, Ill.

On cosmic bubble sculptures

The honeycomb that Wang is investigating ("Honeycomb found in galaxy nearest us," SN: 11/21/92, p.342) is indeed beautiful, but is its formation so mysterious that it requires exotic jets and stellar winds for explanation?

A simpler explanation might involve a supernova that triggered the formation of similar-sized stars in that area. A second supernova cleared out the bubble on which the star

cluster borders, and the radiation and heated gas from that explosion triggered the supernova of the "20-odd bubbles that form the honeycomb."

With so many stars up there, such a formation doesn't seem unlikely.

James David Jones
Sewanee, Tenn.

The researcher believes that the highly uniform, spherical shape of the bubbles might require a special mechanism. — R. Cowen

Stress and the potbellied carp

The mechanism by which "Carp grow potbellies to foil predatory fish" (SN: 11/21/92, p.341) is suggested by Havel to be a response to a chemical secreted by pike.

Data from other vertebrates, including humans, suggest that stress initiates a specific response from the body that involves the nervous and endocrine systems. Being cautiously anthropomorphic, I would suggest that the carp's role in the predator-prey relationship induces a level of stress which precipitates nervous and endocrine changes that are adaptive over the short term — a potbelly.

W. William Hughes

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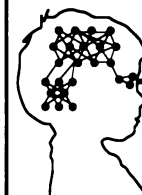
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