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Letters

Miscalculations?

That infants can add and subtract ("Babies Add Up Basic Arithmetic Skills," SN: 8/29/92, p.132) probably should come as no surprise, since the past few decades have revealed increasingly amazing talents of the human brain. I just hope Karen Wynn's experiments haven't taught those infants that $1 + 1 = 3!$

Wayne Wyrick
Warr Acres, Okla.

Tau's theoretical underpinnings

Martin Perl's statement concerning the discovery of tau ("Particles of History," SN: 9/12/92, p.174) is misleading. He states that in the design of the detector "there was nothing... hinting at what was actually discovered. No one was sure what they were looking for."

This is not true. Several years before the tau was discovered, I wrote a paper (PHYSICAL REVIEW LETTERS, 1971) discussing in great detail how the heavy lepton should decay if its

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Cover: Pregnancy appears to help protect women against certain kinds of cancers. A Los Angeles research team has used that knowledge to create a controversial hormone treatment aimed at preventing cancer of the breast, ovaries, cervix, and endometrium. (Photo: Chris Butcher)



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mass is 0.6, 0.8, 1.2, 1.8, 3.0, or 6.0 Gev. The 1.8 Gev value is closest to the present value of 1.777 Gev. Furthermore, my paper was cited in the original proposal for the experiment at Mark I detector for SPEAR at SLAC. Essentially, they used my calculation for their proposal.

There may be times when theory is not coupled with experimental discovery, but in this particular case it was.

Yung Su Tsai
Theoretical Physics Group
Stanford Linear Accelerator Center
Stanford, Calif.

Back to bloodletting?

In "Excess Iron Linked to Heart Disease" (SN: 9/19/92, p.180), Dr. Sullivan suggests that donating blood may reduce the risk of heart attacks.

What is going on? First we hear that the anticoagulating abilities of leeches are helpful in healing surgically reattached fingers, and now Dr. Sullivan is advocating the healthful properties of bloodletting.

What's next? Barber-doctors drilling holes in people's skulls to release evil spirits?

Blake Ashley
Downey, Calif.

Now that we find that excess iron in the blood may be a risk factor for heart disease, and since bloodletting or even blood loss, as in menstruation, is an ameliorating factor, maybe the old-fashioned practice of phlebotomy will be restored to the physician's armamentarium.

In any case, we may learn not to sneer so fast at some practices of old-time medicine.

Arthur J. Morgan
New York, N.Y.

Causes of competitive disadvantage

Regarding "Tackling R&D Stagnation" (SN: 9/19/92, p.190), I believe the National Science Board missed a fundamental competitive advantage of research conducted by the Germans and Japanese. They do not publish

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research results until they are already in a position to reap the advantage of their research.

Here in the United States, we give away our competitive advantage by publishing too soon. It is one thing to publish basic research years before it could possibly contribute to a product – this can contribute to synergism, which more quickly brings practical value to these discoveries. But to publish our VCR technology only months prior to practical application simply handed our efforts to our competitors.

Researchers may lament handcuffs on their right to publish as soon as a discovery is made, but that is nothing compared to the lack-of-funds handcuffs we live with now.

Bill Ferreira
Erie, Colo.

I particularly enjoyed "Tackling R&D Stagnation" because it reflects views I hold myself from experience in the pension industry. In addition to the remedies suggested to stimulate R&D directly (thereby treating the symptoms), there is a relatively simple way to attack the underlying disease.

First, eliminate or reduce taxation of long-term capital appreciation in the economy. If this were done for investments held, say, 10 years or more, then there would be no need for the tax-exempt status of pension trust capital appreciation. (This also levels the playing field for individual investors.)

Pension fund money managers would have an incentive to find investments with good

long-term prospects, which in turn would spur business management to seek growth instead of immediate profits. This is the ownership objective of the entrepreneur, and it should be the objective of the pension fund.

Second, eliminate the present tax-favored stock option plans, particularly those that allow the awarding of stock appreciation rights. This would link management incentive to the success of the company, not the success of the stock market – the two are not the same.

Instead, offer a tax incentive for a plan that would issue, at some measure like current domestic book value of the company, a certain number of dollar-valued units of "ownership." This ownership would only be redeemable through repurchase by the company at a fixed future date and at a price adjusted to reflect change in the measure since issue. This approach rewards growth in the company (and domestic employment and productivity) rather than success in the stock market. I see no reason for our tax system to reward the current approach of shipping jobs offshore.

We got into this mess through tax policy, and that's also the way out.

Lawrence K. Ellsworth
Knoxville, Tenn.

We just completed an internal R&D self-audit at my place of employment, where we manufacture professional equipment. The problems identified in "Tackling R&D Stagnation" were curiously parallel to our findings.

I take exception to Mr. Roland Schmitt's solution, calling for increased funding of government incentives, and particularly to Rep.

George Brown's claiming of the "peace dividend." Natural economic forces, such as free-market competition, would best influence research, engineering, and manufacturing incentives. I submit that government intervention has proven more deterrent than help to U.S. competitiveness.

Thomas P. Becker
Kenosha, Wis.

"Tackling R&D Stagnation" had a strange title in that the author did not identify the initials R&D.

We really enjoy *Science News* – the whole family reads it.

J. LeJeune
Metairie, La.

You are correct. R&D – an abbreviation for research and development – should have been spelled out

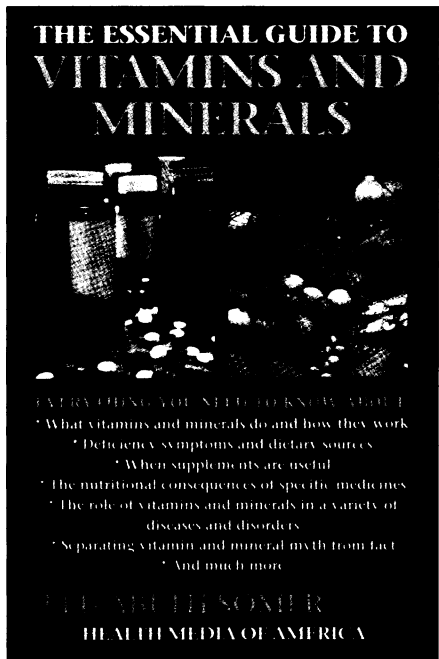
– J. Raloff

Newer images?

In "Friction reveals chemical composition" (SN: 9/19/92, p.183), you talk about "a new type of atomic force microscope . . . which takes advantage of differences in the friction forces exerted by various materials. . . ."

We at Digital Instruments have been selling exactly such an instrument for nearly a year under the name "lateral force microscope" (LFM).

Robert Bernstein
Design Engineer
Digital Instruments, Inc.
Santa Barbara, Calif



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