

The Weekly Newsmagazine of Science

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**Cover:** The role of feasting in ancient rituals and social life is attracting a growing number of archaeological inquires. The approximately 4,000-year-old perforated plaque shown here, in a composite image, portrays a procession of Sumerians bearing offerings that contributed to regular community feasts. **Page 331** (Photo: University of Chicago Oriental Institute. FX: Mark Gilvey/Design Imaging)

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# **Letters**

## A voice from beyond the grave?

The lively article on butterfly IQ ("How Bright is a Butterfly?" SN: 4/11/98, p. 233) errs in stating that Charles Darwin "wrote in 1895." Darwin died in 1882, so the quotation must have come from a later edition of his book.

Jim Zosel Minneapolis, Minn.

### Improved ID may worsen crime

I read "Private Eyes" (SN: 4/4/98, p. 216) with apprehension. If automatic teller machines (ATMs) someday permit presentation of a body part for authentication purposes, then ruthless muggers will no longer be content with taking your wallet, watch, and jewelry—they'll cut off your finger or rip out your eyeball in order to fool the finger-print analyzer or retinal scanner and gain complete access to your bank account.

ATMs should always require a personal

identification number (PIN). In fact, users really need *two* PINS—an access PIN for withdrawing money and a duress PIN to trip a silent alarm if the user is being forced to withdraw money.

Skylar Barclay Sudderth Brownwood. Texas

## Role of game theory in economics

The issues and theories discussed in "Yours, Mine, and Ours" (SN: 3/28/98, p. 205) do not challenge traditional economic theory, they complement it. Traditional theory does a rather good job of explaining the behavior of large, impersonal markets, which constitute an enormous fraction of commercial activity. It often does a bad job of explaining the behavior of small groups, where individuals know each other and may interact repeatedly over time, or nonmarket situations, such as public choice of government policy. Every example discussed in the article concerned one of those two cases.

Modern game theory offers insights into

such situations, which is precisely why economists have been so excited about it for at least the last 15 years. Although economists may disagree about the particulars of the theories discussed in the article, virtually all agree that the general approach is both useful and consistent with traditional theory.

John J. Seater
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The experiments apparently did not take into consideration the role that trust plays in cooperation. Because cooperation is a two-way street, each cooperator has to be able to trust the other's intention.

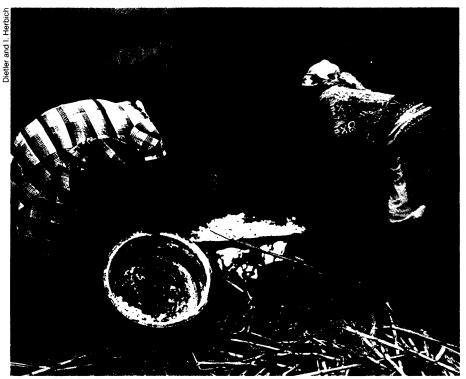
Trust is easier among people who are most like us or with whom we have had some experience. The smaller and more homogeneous the cooperating group and the longer their shared past, the easier it is to estabish

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Luo women prepare ingredients for brewing beer to be consumed at a feast.

more than 4,000 years to ancient Sumeria, the earliest known civilization, asserts Denise Schmandt-Besserat of the University of Texas at Austin.

She finds many artistic portrayals of feasts on Sumerian monuments, plaques, and cylinder seals. Economic records written on clay tablets list feasts from throughout the year and tally up the offerings associated with each of them.

Sumerian rulers organized a feast each month in honor of specific gods, the Texas researcher says. Large processions of worshippers, including representatives of government groups and professional guilds, brought various foods and other gifts to the royal palace. Part of this bounty was consumed in a community banquet. The queen was responsible for divvying up portions of the remainder for the royal family's use and for divine offerings.

"The feast was a means of collecting surplus goods that then constituted the wealth of the royal palace," Schmandt-Besserat contends.

Sumerian citizens feared the wrath of deities who received inadequate awards, she adds. Households worked hard to produce surpluses of food and other goods so that they could surpass their neighbors in the quantity and quality of their offerings to the gods—via the royal family.

n the United States, feasts are still going strong, even if tax-collecting rituals now revolve around 1040 forms and IRS audits. Evidence of relatively frequent household feasts appears in an analysis of discarded artifacts, otherwise

known as garbage, obtained during 1994 from Tucson trash collectors.

The Garbage Project, directed by William L. Rathje of the University of Arizona in Tucson, has tabulated characteristics of solid waste in 15 North American communities over the past 25 years.

A feast occurs in the average Tucson household around every 100 days, according to Rathje and his colleague Douglas C. Wilson. Communal eating and drinking occur on all sorts of occasions, from Christmas and Presidents' Day to end-of-the-work-week celebrations, Wilson says. Tucson feasts, which are intended primarily for entertainment, usually feature a variety of snack foods and considerable alcohol.

These events are relatively small, usually attracting between 15 and 45 people, Wilson remarks.

Larger feasts accompany events such as weddings, but these gatherings also emphasize entertainment rather than community cohesiveness or spiritual connections, he adds.

"We've emasculated and secularized many feasts by transferring them to restaurants, where debts are not entered into a social and political order but are paid off with a credit card," Wilson asserts.

Archaeological payoffs in the quest to illuminate ancient feasts remain rather meager, acknowledges Hayden. Many investigators who stumble upon the remnants of a vast repast think they have simply arrived unfashionably late to what was once a big party, he argues.

"There are signs of improvement, but the theoretical understanding of feasting behavior has been pretty abysmal," Hayden notes.

trust. This explains why generosity and cooperation rise among participants who have a chance to talk and discover common interests.

Marilyn Kramer Wausau, Wis.

Although not elaborated on in the article, researchers who conduct ultimatum and public goods experiments indeed consider trust to be important. However, no single variable easily explains the economic behavior of an animal that mixes multiple group affiliations with self-interest.

—B. Bower

I have never read an article in a respectable publication that was so full of methodological, logical, and theoretical fallacies as this one. First of all, "games" are just that—games! People "play" very differently when the stakes are real. Secondly, the games used were apparently zero-sum games, with a definite and finite amount of money or rewards in each one.

A real capitalistic, market economy is not at all like that. A market economy produces wealth and new capital. The capitalist does not need to depend upon taking away from the other guy in order to make a profit. In fact, he may need to give to the other guy to make a profit (increase his capital). The game players left out the whole matter of productivity, which is at the heart of a capitalistic, market economy.

Roland Sparks Lake Forest, Calif.

