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The Rockefeller University

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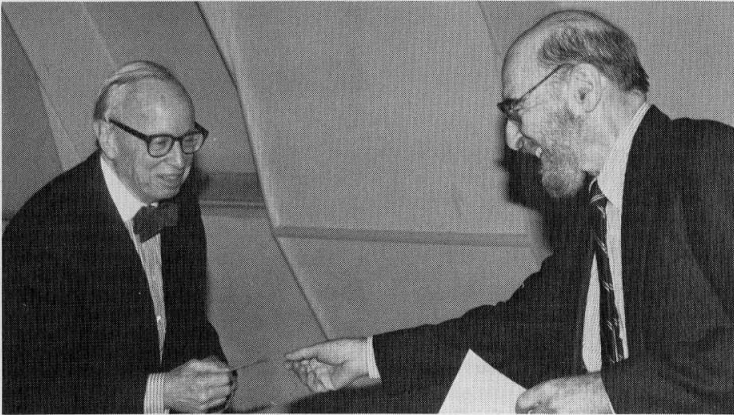
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news & notes

November 20, 1992 Volume 3, Number 11

The Rockefeller University



Arthur Schlesinger, Jr. (left), winner of the 1992-93 Toynbee Prize for his contribution to the social sciences, receives a check from MIT Professor Bruce Mazlish, co-chair of the nominating committee, in an award ceremony held at The Rockefeller University last week.

Benefit helps employees save money

The Personnel Office has added a major new tax-saving opportunity to its benefits for Rockefeller University employees. Those whose expenses include a young child's care or major medical bills can save over \$2,000 next year by enrolling in the university's flexible spending account (FSA) plan. Almost everyone can save some money through the plan—and several enterprising individuals already have.

"I was delighted when the FSA plan started in July," said Jim Metalios, director of physical facilities. "It allows me to use money that isn't taxed to pay for medical expenses. This is as close to a free lunch as you're going to get."

Margaret Geller, secretary in the Tomasz lab, is another satisfied participant. "My son is going to need braces next year and the plan is really going to help financially," she said. "If he were little, I would use it for his care, too."

Although there is some paperwork involved, the savings that result from flexible spending

accounts are very real, according to Darryl Williams, benefits manager in Personnel. "It's well worth putting in the effort, because you'll have more in your pocket at the end of the year."

The plan, made possible by a bill passed in Congress in the 1980s, works by exempting from taxation money put aside specifically for medical expenses or dependent care. For most people this means that each dollar put into the plan goes about 30 percent further—and this savings can add up fast.

FSAs cover bills not covered in standard health and dental plans.

See *Benefit*, page 2

Major history prize awarded at RU

Arthur Schlesinger, Jr., the distinguished historian, educator and pundit, received the 1992-93 Toynbee Prize and delivered the Toynbee lecture at The Rockefeller University last Friday.

The Toynbee Prize, a major international award presented biannually to an outstanding scholar for his or her work in enriching the social sciences, commemorates the life and work of the great British historian and philosopher, Arnold Toynbee. Previous recipients have included Pope Paul VI, Jean Paul Sartre, Lord Kenneth Clark, and George Kennan.

President Torsten Wiesel welcomed guests and reminded them that, in the spirit of Toynbee, The Rockefeller University is an international center of science and learning with a community from dozens of countries.

Jill Conway, president of the Toynbee Foundation and former president of Smith College, spoke about the history of the Toynbee Prize, established in the mid-70s. Co-chairs of the nominating committee and former recipients of the prize Ralph Bultjens, professor of history at Cambridge University, and Bruce Mazlish, MIT professor of history, paid tribute to Toynbee in introductory remarks.

"Toynbee's vision of world history and his advocacy of a transnational perspective remains as a towering inspiration, taking on increased importance in our epoch

of strident parochial claims and the unexpected resurgence of what has been called primordial ties," Mazlish said.

Mazlish and Bultjens presented Schlesinger with a check and a plaque. The citation reads, in part: "In awarding the Toynbee Prize, the Nominating Committee honors Professor Schlesinger's distinctive achievements in American academic and civic life, being especially aware of his remarkable capacity to pursue with verve and effect both the life of the mind and the life of politics in the United States."

After receiving the award, Schlesinger delivered a lecture, entitled "Historical Cycles and Human Freedom." He discussed whether a cyclical view of history implies a limitation on individual freedom. While he supports the view that there are historical cycles, he believes they are cycles of opportunity, not necessity; what leaders do with the possibilities of their time is a matter of individual choice and vision. He pointed out that the election of Bill Clinton was consistent with a 30-year cycle in American presidential politics which swings from conservatism to innovation, from a faith in private action to public intervention.

Since 1966, Schlesinger has been

See *Prize*, page 2

\$17 tickets for \$7

The Wednesday evening concert series is running a special for its Dec. 2 concert featuring the father-daughter team, pianist Claude Frank and violinist Pamela Frank.

Tickets—usually \$17—will be sold to members of the university community for \$7 each. They can be purchased, on a first-come first-served basis, from the university's cashier on the second floor of Founder's Hall, on Tues, Dec. 1 and Wed., Dec. 2 between 10 A.M. and 2 P.M. For more information about the concert series, contact Cathy Rogers, x8971.

Concert honors memory of Elizabeth Seitz



Rockefeller University President Emeritus Frederick Seitz (left) and pianist Ory Shihor prepare for a memorial concert for Seitz's wife Elizabeth Marshall Seitz on Wednesday.

2 Joke book defies laws of gravity

3 Lecture addresses animal thinking

Rockefeller scientist defies gravity with joke book

Is science sometimes a laugh? Rockefeller University Professor Joel E. Cohen thinks so, and his latest book sets out to reveal the humor that lurks behind the seriousness of scientific work. *Absolute Zero Gravity*, published this month by Simon and Schuster, is a collection of jokes, anecdotes, limericks, and riddles revealing the funny side of physics, biology, mathematics, and other branches of science.

Cohen thinks scientists are natural humorists. "Scientists are funny people," Cohen writes in the preface. "Not just the great ones who think they've discovered the

secret of life or of the brain or of the common cold. Even ordinary day-to-day scientists are funny, because they all think that the world makes sense! Most people know better."

Cohen has been collecting jokes and anecdotes for over 10 years for use in his lectures and talks. When Betsy Devine, a writer at the Institute for Advanced Studies in Princeton, New Jersey, mentioned that she planned to write a book of science humor, Cohen knew the time had come to share his material with the world. He immediately suggested they collaborate on the work.

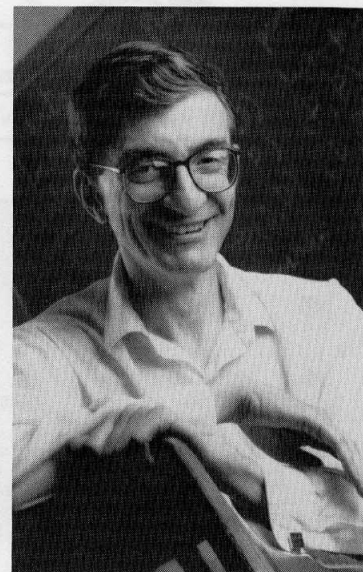
This week the book, which sells as a paperback at \$8 per copy, began to appear in bookstores—such as the Cornell Medical Book Store around the corner from Rockefeller, Rizzoli downtown, and Shakespeare and Co. on Broadway. (It can also be ordered from the publisher, 1-800-223-2336.)

"It's a perfect gift," Cohen says, "for your mother, who never understood what you were doing, and for your mother-in-law, who never believed you were doing a thing. Have you ever seen another joke book with the formula for Riemann's zeta function?"

Cohen, who has published six books on mathematical biology and has a seventh in press (*Mutualism and Community Organization: Behavioral, Theoretical and Food Web Approaches* with Hiroya Kawanabe and Keiji Iwasaki, Oxford University Press), found publishing *Absolute Zero Gravity* quite a different experience from his other books.

"This was much more fun," he says. "I got a chuckle out of it every time I looked at the proofs. You don't get chuckles when you're proofreading mathematics."

Cohen invites anyone who has additional jokes to send them to him, box 20 or e-mail *cohen*. Not



Joel E. Cohen recently published *Absolute Zero Gravity*, a book of science jokes and anecdotes.

only will he enjoy them, he hopes to expand his collection enough to publish another joke book one day.

History prize awarded at RU

(continued from page 1)

Albert Schweitzer Professor of the Humanities at the Graduate Center, City University of New York. His accomplishments as a writer and scholar have earned him numerous distinguished prizes, including two Pulitzer Prizes, Bancroft and Parkman Prizes, the National Book Award, and the National Institution of Arts and Letters Gold Medal for History. His work has always found a wide lay as well as professional audience.

He has brought his knowledge of history to bear upon public affairs as a writer, a Democratic Party leader, and as a special assistant to the President of the United States (1961-64). The principal focus of his scholarship has been liberal politics in the United States, beginning with *The Age of Jackson*, continuing with his multivolume, *Age of Roosevelt*, and extending to his studies of John and Robert Kennedy. He has also brought his historical understanding to bear upon contemporary issues, most recently the nature of American diversity in a pluralized world.

The Toynbee Prize, the world's leading award for contribution to the social sciences, emphasizes the broadest historical view of human society and human social problems. The Toynbee Foundation has been instrumental in supporting an effort to develop a new field of history, known as global history. In July 1991, a conference was held in Bellagio, Italy that produced a volume, "Conceptualizing Global History," published by Westview Press. A second conference on "Globalism and Localism" was held this year in Darmstadt, Germany.

Benefit helps employees make their money go further

(continued from page 1)

Eye glasses, contact lenses, deductibles, visits to the chiropractor, lab fees, vaccinations, hearing aids, birth control pills, psychotherapy, and orthodontal work are among the eligible expenses. A child's day care, preschool, or kindergarten fees—for example payments to the The Rockefeller University Children's School—are also eligible.

The first step to enroll in the plan is to call Williams, x8297, or drop by his office in Founder's Hall 103. He will help you fill out the FSA worksheet and enrollment

form, and answer any questions you may have.

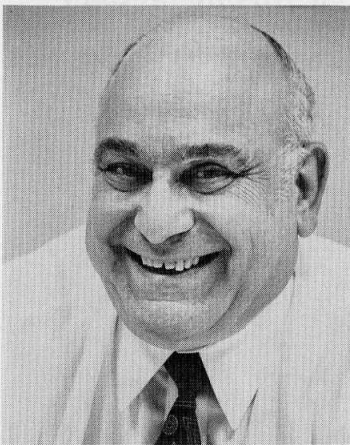
"The most complicated part of using FSAs is figuring out how much money to put aside," Williams said. "But it's not difficult once you get the hang of it. I tell employees to be conservative in their estimates, because money remaining in the account at the end of the year is not returned or rolled over to the next year. However, if the calculations are done correctly, this is rarely a problem."

Employees can set aside between \$100 and \$3,000 for health care, and between \$100 and \$5,000 for

dependent care in the FSA plan.

Once an employee is enrolled, FSA money is deducted from his or her paycheck throughout the year and put into a special account. Taxes are not withheld. To reclaim money in the account, employees send receipts and a claim form to The Prudential and the company sends back a reimbursement check.

The deadline for enrolling in the FSA plan for next year is Mon., Dec. 7.



James Metalios, director of physical facilities, and Margaret Geller, secretary in the Tomasz lab, are two employees who save money through the university's new flexible spending account (FSA) plan. Metalios calls the plan "as close to a free lunch as you're going to get."



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Pioneer in animal behavior asks, 'do animals think?'

by Susan Blum

Can animals think? A small but growing group of scientists known as "cognitive ethologists" think they can. Donald Griffin, the dean of this scientific field and a professor emeritus at Rockefeller, discussed the subject of animal thinking at last week's Fairfield Osborn Memorial Lecture in Environmental Science, held in Caspary Auditorium.

Griffin's objective, he told the assembly, is to "see how in the world one might learn what life is like for animals of various sorts." Specifically, he said, he wants to know "do animals think, and if they do, how do they choose behavior that they hope will obtain what they desire or avoid what they fear?"

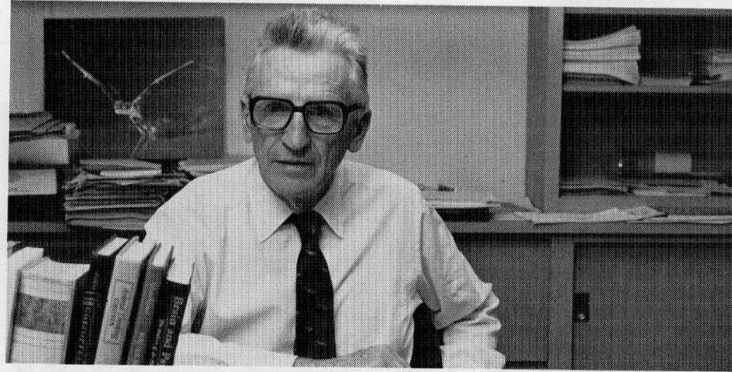
He stressed that such explorations do not imply that animals' thoughts are like our own. "It seems to me almost certain that whatever conscious thoughts animals may have, they are going to be relatively simple, and the content is going to be objects or events that are important to the animals, not to us." In his most recent book, *Animal Minds*, Griffin terms this kind of consciousness "perceptual consciousness," and speculates that it may include memories, anticipations, or thoughts about non-existent objects or events as well as about immediate sensory input.

Versatility suggests thought

Two sorts of evidence are "significantly suggestive" of conscious thinking in animals, Griffin told the group. One is behavioral versatility—the ability of an animal, when confronted by new circumstances, to adapt its behavior in ways unlikely to have been genetically programmed or learned.

An example of such versatility is the fishing behavior of a few green-backed herons. These herons feed on fish and other small aquatic creatures, which they capture with their long, curved bills. Ordinarily, the birds stand in or near shallow water, waiting patiently for their prey to come into range. Occasionally, though, a heron uses "bait" to increase the likelihood of nabbing a tasty meal. Picking up an alluring object such as a bread crumb or a twig, the bird drops it into the water, then watches and waits until the prey appears. If the bait drifts away, the heron may retrieve it and drop it into the water again.

"This kind of behavior is certainly suggestive of thinking about ways of getting food," Griffin said. He pointed out that the behavior is not



Professor Emeritus Donald Griffin is one of a growing number of scientists who explore the nature of animal thinking.

stereotypical: some birds stand on the shore and wait for their prey, while others perch on a branch. Nor is it universal: only a small fraction of herons engage in the activity, and those who do not cannot be taught how to do it. Said Griffin, "it looks like it's something an occasional heron stumbles on, and figures out that maybe this will be a way of getting more fish."

Communication provides windows on minds

Animal communication is the second, and perhaps more promising, window into animal minds. "Many of these communications may in fact be expressions of conscious thoughts," Griffin proposed.

Many observers have been convinced that captive chimpanzees and gorillas express their thoughts using symbolic languages taught to them by their human trainers. But even in the wild, Griffin reported, untrained primates appear to communicate meaningfully and intentionally.

An example is the East African vervet monkey, the subject of studies by Robert Seyfarth and Dorothy Cheney, both former Rockefeller postdocs in the laboratory of Peter Marler. The monkeys make three different, characteristic alarm cries when they see three different kinds of predators: leopards, eagles, and snakes. Each of these cries elicits a different behavior from the vervets who hear them: leopard calls cause the monkeys to clamber up trees; eagle calls send them into the bushes, and snake calls cause them to stand on their hind legs. Experiments conducted by Seyfarth, Cheney, and Marler led them to assert that the calls function as semantic signals—that is, signals that stand for or conjure up images of the predator.

"It had always been thought that alarm calls were simple expressions of fear or emotion, and did not designate anything," said Griffin.

Today, some skeptics still argue that the calls do not designate particular animals, but are rather injunctions to escape in various ways. "That's a trivial point," Griffin rejoined. "Even if the calls are injunctions to stand up on your legs or climb a tree, they're still conveying specific information. And this is at least suggestive that the monkeys are thinking: 'There's a dangerous aerial predator or ground predator around.'"

Birds and bees provide clues

As another example of animal communication, Griffin discussed the honey guide, an African bird that Griffin believes is capable of forming simple plans and communicating simple thoughts.

Though the bird likes to eat bee larvae and honeycomb wax, it is unable to open bee nests itself. For this, it enlists the help of human honey gatherers. To catch a person's attention, a honey guide conspicuously displays its tail, while making repetitive "churring" noises. When the human approaches, the bird flies off some distance—often out of sight—and then perches in a tree, "churring" loudly until the human catches up. Eventually, this airborne dance leads to the beehive, where the human gathers honey and the bird feasts on larvae and wax. "This is a case where the bird is apparently communicating the message, 'This way, this way!'" Griffin said.

To conclude his talk, Griffin discussed the "waggle dance" of worker honeybees. Inside the hive, a worker bee returning from a food source performs an intricate, figure-eight-shaped maneuver whose subtleties (orientation, vigor, accompanying sounds) symbolically communicate such features as the distance, direction, and desirability of the food. This same communication system is also used to relay other messages, such as the availability of water, wax, and potential new sites for

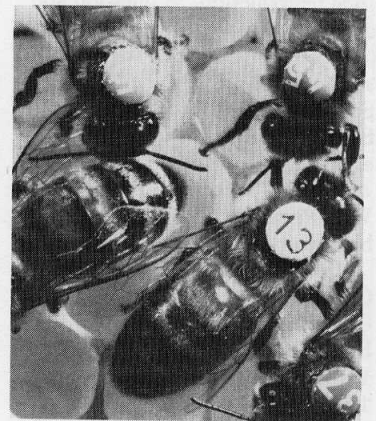
hives. Griffin said the system is remarkable for its versatility and the extent to which it depends on symbolic representations. "Here is an insect communicating in a symbolic fashion, more like human language than almost any other kind of animal communication we know."

"You might say that these are just insects, genetically programmed little robots with one milligram of central nervous system that can't possibly support conscious thinking," Griffin acknowledged—and then proceeded to offer what he termed "a rather radical speculation."

He said, "Conscious thinking seems to me to be clearly adaptive and useful to us in deciding what will get us what we want, or help us avoid what we don't want. It's an efficient way to use a central nervous system, and spares the need of storing a lot of detailed programming about what to do under a number of likely contingencies. When you begin to think about all the things animals do, and the amount of instruction that would have to be stored either by genetic programming or learning, it begins to add up pretty fast."

"Therefore," he continued, "I would like to suggest that maybe this kind of simple, conscious thinking is more important for creatures with small central nervous systems than it is for those of us, like the whales and the great apes, that have a lot of brain to store more programs in."

Such a suggestion, Griffin concluded, is an example of the possibilities that emerge when you try to understand "what life is like" for various animals.



These honeybees are labeled for research. Honeybees have an intricate system of communication that depends on symbolic representation. Griffin argues this could be evidence of thought.

Potpourri

Tri-Institutional Noon Recital

The Essex Quartet and pianist Samuel Bartos will play at Tri-Institutional Noon Recital today (Nov. 20) in Caspary Auditorium. The Essex Quartet, currently quartet-in-residence at the Mason Gross School of the Arts at Rutgers University and former graduate quartet-in-residence with the Juilliard String Quartet, will play a piece by Beethoven. Bartos, winner of the Aeolian Piano Foundation Competition and the Johann Sebastian Bach International Competition, will join three members of the quartet to play a piece by Brahms. Admission is free and open to the Tri-Institutional community.

Sunday film

Shame (1969, Ingmar Bergman), featuring Liv Ullmann and Max von Sydow, will be shown Sun., Nov. 22 at 7:30 P.M., in Caspary Auditorium. On an unnamed island, several musicians are unwillingly caught up in, and gradually corrupted by, a bitter civil war. Admission is free. Everyone is welcome.

Cricket Graph workshop

Shari Zagorski of the Media Resource Service Center will demonstrate Cricket Graph, a graphing program for the Macintosh and Windows, on Tues., Nov. 24 and Wed., Dec 16, from 10 A.M. to noon both days. She will show how to create, format, and change common types of graphs such as bar plots, line graphs, and scatter plots. She will also discuss saving plot templates and preparing plots for printing or slide reproduction. A question and answer period will follow.

If you wish to attend the demonstration, call x8935 to register. Someone will contact you to confirm your place. Participants are encouraged to bring data to the workshop—saved in Word or WordPerfect as columns separated by tabs or in Excel—for plotting.

Two copies of CA Cricket Graph are available from the Computing Services software library: Cricket Graph III, version 1.0 for the Macintosh and version 1.3 for Windows. There is one license for each which can be used from any Mac or PC in the User and Classroom Area, Smith Hall A21.

Holiday Dinner Dance

A date has been set for this year's Holiday Dinner Dance: Fri., Dec. 11. President Torsten Wiesel is



The Essex Quartet will perform with pianist Samuel Bartos at today's Tri-Institutional Noon Recital in Caspary Auditorium.

honorary chairman of the committee organizing the event. More details, including how to purchase tickets, will be forthcoming.

Word 5.1 for the Macintosh

Version 5.1 of Microsoft Word for the Macintosh is now available. This "interim" upgrade has a customizable toolbar similar to the one in Word 2.0 for Windows. This toolbar provides shortcuts for tables, bullets, and print and formatting choices. Other features include automatic indenting, envelope formatting, charting capability, text annotation, an improved spell checker, and an expanded file finder. A PowerBook installation feature makes it easier to use Word on smaller hard drives. The next upgrade, expected in fall 1993, will have all the features of Word for Windows and will include the ability to create macros.

Registered educational versions of Word 5.0 can be upgraded for \$15 (or \$100 per ten pack). Include a check and proof of purchase with the order, which can be sent to: Microsoft Education Sales, 1 Microsoft Way, Dept. 1121, Redmond, Washington 98052-6393. Microsoft's number is: 1-800-426-9400.

Thai fellowship

Funds are available for a visiting investigator who is a Thai national to work in a Rockefeller University laboratory, starting April 1, 1993. Any head of laboratory interested in nominating an investigator for the King of Thailand Biomedical Fellowship should send a brief letter describing the candidate's research and a copy of his/her curriculum vitae to Olivia Buckley, assistant director of development, box 285, by Dec. 15.

Established in 1988 to honor the 60th birthday and 40-year reign of

His Majesty King Bhumibol Adulyadej of Thailand, the endowment fund supports fellowships of one to three years, providing \$30,000 annually towards a stipend, fringe benefits, supplies, moving costs, and travel expenses. Candidates may be at any career level, but must plan to continue their research in Thailand using techniques and knowledge gained in the university's labs. For further information, contact Buckley, x8697.

Support for lab help

The American Society for Biochemistry and Molecular Biology provides support for high school teachers working in a lab. The award consists of a \$5,000 stipend for the high school teacher, \$500 for classroom expenses, and \$500 for research supplies in the lab. Applications are due no later than Feb. 1, 1993. Contact Science Outreach Coordinator Bonnie Kaiser, x7431, for more information. Researchers who already have supplements to support high school teachers or students are also invited to contact Kaiser for her recommendations of candidates to fill these positions.

Appointments

Postdoctoral Associate: Rupa Bandyopadhyay, Desplan lab; Kenji Endo, Wilson lab;
Guest Investigator: Linda Huang, Cowburn lab.

Departures

Assistant Professor: Stevan Dawis, Knight lab; Scott Herness and Charles Mobbs, Pfaff lab;
Adjunct Faculty: Todd Leff, Breslow lab; Yoshio Uchino, Wilson lab;
Visiting Professor: Sanit Makonkawkeyoon, Cohn/Steinman lab;
Research Associate: Nilabh Chaudhary, Blobel lab; Gabriel Fried, Greengard lab; Zhongxin Wu, Goulianos lab.
Postdoctoral Associate: Charles Butler, Gotschlich lab; Laurent Fasano, Desplan lab; Georg Nagel, Gadsby lab; Talvinder Sihra, Greengard lab.
Postdoctoral Fellow: Bernhard Kirschbaum, Roeder lab; Makoto Yoshida, Merrifield lab.
Guest Investigator: Maria Rosaria Coscia, T.P. King lab; Marie-Paule Felder, Hanafusa lab; Sonia Soares, Tomasz lab; Eugene Storzynsky, Cohn/Steinman lab.

Correction

Edward S. Cooper, a new Rockefeller University trustee, has a daughter in the Hirsch lab, not the G. Cross lab as stated in last week's issue of *News&Notes*.

News&Notes takes Thanksgiving off

News&Notes will not be published next week due to the Thanksgiving holidays. Publication will resume Dec. 4.

