tracting faces caused greater activation in a posterior brain area devoted to processing faces when working memory was full than when it was not. That is, when the brain was thinking hard, it spent more effort processing irrelevant visual information. "The ability to act upon relevant information and ignore irrelevant distractors depends on the availability of working memory," Lavie concludes.

The work not only adds a new slant to attention research but also could suggest new avenues for treating certain brain disorders. Schizophrenia and Parkinson's disease, as well as normal aging, are generally accompanied by both a loss of working memory capacity and a diminished ability to screen out distractions. If working memory exerts some control over visual attention, these symptoms might be due to impaired neural connections between the prefrontal cortex and visual brain regions or perhaps to damage solely within the prefrontal cortex itself. Indeed, Lavie and her colleagues may soon explore the implications of their findings for schizophrenia patients. **–INGRID WICKELGREN**

BRAZIL

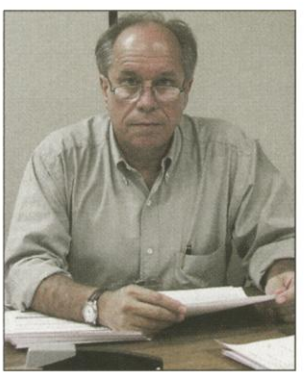
New Industry Taxes Boost Science Budget

RIO DE JANEIRO—Science funding in Brazil, long hobbled by fluctuating federal support, now has a new and involuntary champion—industry. A new tax covering eight industrial sectors is expected to generate many times the current level of spending for research aimed at strengthening the economy. Although most scientists applaud the additional resources and look forward to closer ties with industry, some are worried that the money may not be well spent, that basic academic research may suffer, and that the mechanism gives the government an excuse to reduce its own contribution to research.

Legislation passed in the last year or so by the Brazilian parliament imposes taxes on companies that will be channeled into three types of funds for the support of science and technology. This month, Brazilian officials will draw up ground rules for how to manage the revenues and then form committees that will oversee the process. Each panel will have representatives from the government, industry, universities, and other experts in the field, and the money will be spent within each of the designated sectors (see table). The process has been shepherded by Carlos Américo Pacheco, executive secretary of the Brazilian science ministry (MCT), who hopes to create additional funds in health care, biotechnology, agribusiness, and aeronautics.

The sums already are significant. The petroleum industry, whose CTPetro fund was the first to be created in 1999, last year generated $75 million of the government's overall science budget of $500 million. This year, the telecommunications fund is expected to be an even bigger contributor, as more than half of the projected $850 million federal science budget will come from the industrial sector. A second type of fund, called Green-Yellow in honor of Brazil's national colors, aims to stimulate business-university collaborations and increase local capacity by taxing companies that send money abroad to pay for royalties and technical assistance. A third fund will skim off 20% of the money collected by the sector funds and invest it in research infrastructure.

"This is an exceptionally positive move," says Carlos Henrique de Brito Cruz, a physicist at the State University of Campinas and president of the Foundation for the Support of Research for São Paulo, the richest science state. "The sector funds are especially important as a new and stable source of funding." Adds Reinaldo Guimarães, a professor of social medicine at the State University of Rio de Janeiro, "This is the first time that the [current] government has adopted a scientific measure that is both original and important."



Watchful. Brazilian medical professor Reinaldo Guimarães urges "constant vigilance" to make sure the new tax monies go to science.

Government research funds are currently disbursed by the National Research Council (CNPq)—now called the National Council for Scientific and Technological Development—which will have a seat on the sector fund committees. Pacheco says that the council's 50-year history gives the country plenty of expertise in managing research monies. "There is no doubt that we are on a learning curve," he says, "but I don't believe that there will be waste nor risks to the system." But others are less sanguine. "There has been no planning, and management of the program is complex and confusing," says Guimarães, a consultant to the CNPq. "Planning is necessary if we want to prevent waste."

Scientific societies are also troubled by a provision that reserves about 60% of the money for applied research. "There is no money specifically earmarked for basic research," notes Dora Fix Ventura, a psychology professor at the University of São Paulo and president of the Federation of Associations of Experimental Biology. The Brazilian Society for the Advancement of Science voices a similar sentiment. "At all costs, we must preserve the capacity for research at public universities, which are the backbone of science in Brazil," says Glaci Zancan, the society's president.

Pacheco says that won't be a problem. "We must support the entire network of scientific knowledge, whether at universities or companies, whether basic or applied research," he says. The sector committees have also fostered greater interaction between university and industry scientists, something that scientists say has been sorely lacking. "This has been a process of mutual education," says Luiz Bevilacqua, a mechanical engineer at the National Laboratory for Scientific Computation and a member of the committee that governs CTPetro.

Despite the increased flow of money, scientists remain cautious about the long-term impact of the new arrangement. The government's decision to withhold $70 million from this year's science budget as a contingency against an economic downturn raises questions about the ultimate fate of the sector funds. In addition, some scientists fear that the government may at some point trim its contribution to research because of the growing share coming from industry taxes.

Pacheco insists that the government wouldn't do such a thing. "In fact, the opposite is happening," Pacheco says, citing a $75 million hike in this year's science budget "above and beyond the money received from the sector funds." But Guimarães remains wary. "Constant vigilance is needed," he says.

–CASSIO LEITE VIEIRA

Cassio Leite Vieira is a science writer in Rio de Janeiro.

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