

Hubert Markl: Animal Behaviorist Puts His Learning to Work

BERLIN—At a time when the pressure for change is buffeting the Max Planck Society (MPS) from many sides (see main text), Germany's foremost research organization has for the first time chosen someone from outside its own ranks to take the helm: zoologist Hubert Markl. He may be an "outsider" to the MPS, but Markl is no stranger to the German scientific community. While holding down a professorship at the University of Konstanz near the Swiss border for the past 2 decades, Markl has also been a newspaper columnist, an essayist on scientific ethics, the head of Germany's main granting agency, and president of the reorganized Berlin-Brandenburg Academy of Science—the successor to the prestigious former Prussian Academy of Science.

Colleagues describe him as a formidable intellect, a "spell-binding speaker," a philosopher of science, a good administrator, and "a politician in the best sense of the word." He will need all those talents when he takes over the MPS presidency next June, as the organization struggles to cope with tight budgets and the challenge of opening new institutes in Germany's eastern states.

Born in Bavaria in 1938, Markl studied science at the University of Munich, earning his Ph.D. in zoology in 1962. He did postgraduate work at Harvard University and Rockefeller University in 1965–66, and directed a German zoological institute before becoming a biology professor at Konstanz University in 1974. Much of his research has focused on animal communication. He has also studied how some insects develop complex social systems from simple beginnings, and is fascinated by the way individual ants and bees contribute to their complex hives and colonies by "optimizing their behavior and their goals." It is an observation he keeps in mind when analyzing human organizations. As a leader, Markl said in an interview with *Science*, he tries to ascertain "whether something you want to achieve is better achieved if you just let the individuals do their thing, or whether you have to impose centralized planning. ... Leadership from the top, in conjunction with 'bottom-up' independence, can provide the best solution."

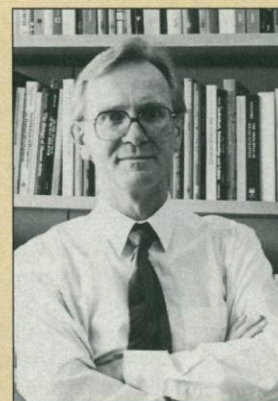
Markl has served on the governing board of the DFG, Germany's basic research granting agency, since the 1970s, and was the organization's president from 1986 to 1991. In 1993, as the Berlin authorities struggled to weld together the scientific traditions of east and west, Markl became founding president of the Berlin-Brandenburg Academy, a post he relinquished last month. There he helped organize interdisciplinary working groups that joined prominent scientists from both sides of the old border. "The greatest challenge was to bring together scientists



with such different biographical backgrounds into a situation where they can work together again," Markl said. Detlev Ganten, who also had to grapple with merging east and west as head of the Max Delbrück national research center near Berlin, says Markl "mastered the situation." Ganten describes Markl as "politically savvy, yet able to project freshness and openness."

Those skills attracted the attention of a search committee of Max Planck's governing board, whose 55 members cast written ballots this summer to ratify Markl as the new president. While Markl is hesitant to define specific plans for the MPS before his term as president begins, he told *Science* in two recent interviews

that he wants "to make sure there will be more emphasis on concentrating resources in centers of excellence" and more clearly defining the missions of scientific institutions. He also wants to foster more cooperation and joint projects between Max Planck institutes and the traditionally separate university system. And he advocates a bit more freedom for talented young scientists chafing to do independent research, although he says such decisions should be made on a case-by-case basis.



HELLA WOLFF-SEYBOLD

Insiders' outsider. Markl, the first president from outside the MPS, will take up the chain of office (left) in June.

this as a major challenge in the next decade," said Markl, who sees far too few women in the higher levels of the MPS. "Things are moving, but they are moving glacially."

As for the east, Markl wants the MPS to establish enough new institutes so that—by the turn of the century—the representation in the east will be roughly proportional to that of western Germany. But he concedes that, if German federal and state governments do not live up to budget commitments, then "it will be very difficult" to bring eastern Germany to that level.

"Max Planck was founded to be ... as good as any institution in the world," Markl says. "To do the best research that can be done, to attract the best people, and give them the best opportunities. This will be my major goal."

—Robert Koenig

Robert Koenig is a science writer in Berlin.

ception. For an organization used to "swimming in money," says an MPS astronomer, the change has been tough. So far, savings have been made by closing selected research areas as their directors retire, says Zacher, a trend that will continue. Beyond this, all institutes face staff cutbacks—a worrisome solution, says Steven Beckwith, a director at the MPI for Astronomy in Heidelberg, as it hits mostly young scientists on fixed-term contracts. "If we cut back positions, my whole group vanishes," he says.

But some researchers believe that the sys-

tem could benefit from a bit of belt-tightening. Molecular biologist Benno Müller-Hill of the University of Cologne carried out a detailed comparison of two MPIs with 11 other German and foreign research departments and institutes and found that the MPS system costs more than twice as much to produce highly cited papers as, for example, his own university department, the Cold Spring Harbor Laboratory on Long Island, New York, or Heidelberg's European Molecular Biology Laboratory.

One consequence of the squeeze is that

future cuts will be tied more closely to research productivity, says Thomas Trautner of the MPI for Molecular Genetics in Berlin, one of four MPS vice presidents. "There is a broad consensus among Max Planck directors that this is the way to proceed," he says.

Along with the debate on cutbacks, another long-standing taboo subject is being openly discussed: the idea that directors should receive part of their funding through quality assessment or project proposals. Although no sudden policy shift is likely, says one insider, "the discussion is heating up."