## **SPECIAL**SECTION



## AUSTRIA

## **'Can't Have a Career ...** Without English'

Katrin Schäfer helps students acquire the skills they need to live and work in a global scientific community

VIENNA, AUSTRIA—"Danke, sehr gut," says Katrin Schäfer, nodding to Christopher Schmied that he's up next. Schmied walks to the front of the class and takes a deep breath before launching into a description of his undergraduate research project, a social psychology experiment to test people's perception of facial hair. But the air seems to thicken like molasses as he switches to his Austrian-accented English.

The previous presentation had crackled along in German, with lightning-fast questions, answers, and even a few jokes zinging between Schäfer, a biological anthropologist, and her undergraduate students. But the easy fluency falls away as the class wrestles with a foreign language. In the polyglot discussion that follows, Schäfer switches between German and her crisply fluent English as needed to keep the conversation going.

Schäfer is a strong proponent of teaching science undergraduates here in English as a way to produce better prepared graduates and help the university attract the brightest students from across Europe. "You simply cannot have a career in the sciences without fluent English," says Schäfer, who grew up in Germany but moved to Vienna in 1988, "and the sooner you start, the better."

Walking down the hall after class, Schäfer daydreams about spending some time on her own research, the evolutionary forces that shaped the modern human skull. This is a "luxury" for which she carves out "10% of the week," an amount typical for someone past the grueling habilitation period but still early in her career. But students suddenly descend like hawks from every direction, desperately seeking final tweaks to posters that they must finish before accompanying her to an upcoming anthropology conference in Philadelphia. She's by their side until 7 p.m., looking over the English-language explanations of their work.

"I'm happy to do this because I want them to have a different experience from what we had," she says. As an undergraduate in this department nearly 20 years ago, says Schäfer,

BOHANNON/SCIENCE

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it was "sink or swim." Students were responsible for finding a faculty mentor and developing a research project that would lead to a Ph.D. "We were all so confused, and many of us dropped out or failed." Today's students have "wonderful advantages," she says, including guaranteed mentoring and exposure to international students and visiting scientists. "They also have more choices. Only about 10% go on to do a Ph.D., and that's fine. The [undergraduate] degree is still valuable."

Undergirding these new resources is a shifting landscape of language. Only a few generations ago, when cutting-edge research was published in journals with names like Angewandtechemie, proficiency in German



undergraduates in German puts them at a disadvantage.

was a must for serious science students around the world. Times have changed. Now most researchers acknowledge that English is science's lingua franca.

But switching over to an English-based curriculum will not come easy, says fellow University of Vienna (UV) anthropologist Karl Grammer. "The opposition ... will be very high," he says, "mainly because it would mean giving up German as a scientific language." Faculty members would also have to redo all their teaching material. Grammer favors a bachelor's program in German with an optional switch to English at the master's level.

Georg Winckler, an economist and rector of UV, would like the faculty to embrace what he calls "multilingualism": courses taught in German, with visiting professors lecturing in English. "The students can ask questions in German," he says, "and the professor must be able to understand but can answer in English." But at the moment, the decision is left to each department. Some, such as the molecular biology program, have already switched to English for their lectures.

Although Schäfer agrees that a melting-pot approach would help attract international students, she sees a deeper problem with holding on to the mother tongue. By requiring German language ability, candidates for new university positions are "limited to the German-speaking world." That factor helps explain why Austrian universities are filling with German scientists. "I have nothing against Germans; after all, I'm one of them," she says, "but if we're going to be a competitive research university, we need people from all around the world." The Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany, has recruited a

"world-class faculty," she says, by "doing everything in English."

This linguistic battle is taking place as UV and other universities on the continent struggle to restructure their degree programs. The current undergraduate system, identical to that of Germany to the northwest, is 5 years of study and a research-based thesis culminating in a degree called the Diplom. But in line with the "Bologna process"-an overarching plan to promote academic mobility in Europe by standardizing degrees that grew out of a 1999 gathering of education ministers in Bologna, Italy-the Diplom will be reduced to a 3-year U.K.-style bachelor's degree. To

fill the gap between the bachelor's and the Ph.D., universities are introducing a buffet of 2-year master's degrees.

Although that transition may be a rocky one, everyone agrees that the status quo no longer works. It's a wrenching concession for an institution established in 1365 that helped spawn the current Anglo-American system. Now the tables are turned, Schäfer admits, "but it is for the best."

-JOHN BOHANNON

www.sciencemag.org SCIENCE VOL 317 6 JULY 2007 Published by AAAS