

conditions dictated by federal and state university laws, compounded by legal systems that rule on salaries for technical and academic staff. The result is a stable system, but one that favours the mediocre. Salaries depend solely on age, family status, and years in the job.

After five years at the university, everyone attains the right to permanent, tenured employment almost regardless of quality. As such positions are usually already filled and are no longer created, a well trained technician or academic staff member has to leave even if funds for their salary are available from research grants and they do not necessarily seek permanent employment.

Compared to the United States, tenure is reached early and in high numbers. This creates complacency. Furthermore, no university in Germany (except a few private institutions) can select their students. They have no influence on selection criteria or numbers admitted, and no student pays a single Pfennig for tuition. No wonder that calls for payment by results are opposed.

But at least some faculties have begun to reallocate their scarce resources on the basis of objective criteria that allow the assessment of research results.

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... and reduces students' chances of publishing

Sir — It is essential to introduce pay by results and to abolish civil servant status for university teachers in Germany. Civil servant status — commonly known as a synonym of inefficiency — prevents the firing of academics who can't compete in the 'publish or perish' world of science. Academics should face competition, in the same way as every other part of the labour market does.

During my studies in Germany I observed that the lack of an efficient system for the evaluation of university teachers leads to a growing class of academics who know that their performance does not affect their income. (I do not want to attack those who accept the rules of competition and know that their reputation depends on the quality of their publications.)

Lecturers usually neglect their teaching duties, and deliver the same lectures unchanged for years. From my experience I know that students with less renowned supervisors have to work harder to have research published, and often do not get a job in industry because in a tough job market the reputation of the supervisor is essential. Their work is not assessed fairly

and they won't get the chance to prove their abilities. Because such incompetent supervisors waste time on inefficient administration, they cannot provide the necessary support to students. They lack the skills to submit applications for funds, so their students have to finish their work on state benefits. But such supervisors can't lose their posts.

I do not support the call to abandon *Habilitation*, the postdoctoral qualification required to become a member of the teaching staff. *Habilitation* is necessary for a fair judgement of the individual's skills as a leader and manager.

For the sake of good research and education in Germany, the introduction of competition at universities is overdue. Payment by results only threatens the incompetent. Students are evaluated every day — so why not their teachers?

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Frémiet's phantasms

Sir — As a one-time 'fledgling palaeontologist' inspired by Frémiet's sculptures in the Paris Jardin des Plantes, I read with interest Martin Kemp's piece on their relevance to the public understanding of palaeontology and evolution (*Nature*, 396, 727; 1998). However, his interpretation prompts some comments.

Besides the bronze relief *Man Triumphant over Two Bears*, shown by Kemp, there is another sculpture by Frémiet in the Jardin des Plantes depicting the struggle between man and bear — with apparently a completely different outcome. *Le dénicheur d'ours* ('Bear Cub



Darwinism or symbolism? Emmanuel Frémiet's *Bear Cub Snatcher*, Jardin des Plantes, Paris.

Snatcher) is a large bronze statue standing near a children's playground not far from the Galerie d'Anatomie Comparée et de Paléontologie. It shows a prehistoric hunter, a strangled bear cub tied to his waist, in the deadly embrace of an adult bear (presumably the mother). There is a knife stuck in the bear's throat, but the animal is clearly in the process of breaking the hunter's back. This statue is thus a 'mirror image' of man triumphant. So, even in the popular scientific mythology of the late nineteenth century illustrated by Frémiet's work, the triumph of man over beast was far from assured (as also in Frémiet's *Orang-utan strangling a native of Borneo*, also shown by Kemp).

But the prominence of Frémiet's depiction of the struggle between primitive man and beasts in the Galerie d'Anatomie Comparée et de Paléontologie is actually something of a paradox. Kemp's labelling of Albert Gaudry, who conceived the Galerie, as "the leading French advocate of Darwin's theories" is misleading.

Gaudry was an evolutionist, and wrote that he had read Darwin's *Origin of Species* "with passionate admiration" and had "savoured it slowly, as one drinks a delicious liqueur". Nonetheless he had no taste for natural selection as envisioned by Darwin, and admitted that he was "far from Darwin's philosophical ideas in some respects". (Gaudry's quotations here are translated from ref. 1).

Because of his strong religious belief in a harmonious Creation, in which chance and struggle had no place, Gaudry developed an idyllic view of evolution², in which carnivores fed on herbivores to put an end to their sufferings when they grew old, and living beings developed according to a benevolent divine plan. He was convinced that "there was no competition for life, everything was harmonious". This was a far cry from mainstream Darwinism, especially its nineteenth-century incarnation.

Seen in that light, Frémiet's work stands as a symbol for the triumph of the human spirit (seen by Gaudry as the "marvel of Creation") over brute strength rather than a depiction of a Darwinian struggle for life.

In any case, whatever their exact cultural significance, these late nineteenth-century sculptures are more artistically interesting than the derelict and scientifically inaccurate fibreglass stegosaur, a late twentieth-century addition, that now 'adorns' the grounds of the Galerie d'Anatomie Comparée et de Paléontologie.

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1. Gaudry, A. *Les ancêtres de nos animaux dans les temps géologiques* (Baillière, Paris, 1888).
2. Buffetaut, E. *A Short History of Vertebrate Palaeontology* (Croom Helm, London, 1987).