



## Haeckel, Embryos, and Evolution

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# Editorial & Letters

**EDITORIAL**

## Toward a Transparent Federal S&T Budget

Everyone recognizes that advances in science and technology are required to fuel future

**LETTERS**

From the past to the future

AL [REDACTED] The authors of a recent

mon ancestor (5).

Haeckel's drawings are used in many modern textbooks, but not always as primary evidence for evolution. In *Molecular Biology of the Cell* (6), the drawings are used

We are not the first to question the drawings. Haeckel's past accusers included His (Leipzig University), Rüttimeyer (Basel University), and Brass (leader of the Keplerbund group of Protestant scientists). However, these critics did not give persuasive evidence in support of their arguments.

[Better Data  
=  
Better Science]

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#### Demographic Thinking

In his commentary "The future of human longevity (*Science's Compass*, 17 Apr., p. 395), John R. Wilmoth aptly captures the spirit of demographic thinking as well as the

85 in the year 2050 is well within the bounds of uncertainty. Life expectancy is heavily influenced by mortality early in life. Furthermore, life expectancy is a synthetic measure of current mortality conditions in a particular year: It is calculated by fixing age-specific death rates at prevailing levels. Hence, it is useful to examine other measures of longevity. Half of the babies born in the United States and other developed countries this year may survive to age 91. Half of the white female babies may live to celebrate their 95th or 100th birthday (depending on whether extrapolations are based on data from the past eight or the past three decades) (1). Although these are simply alternative ways of expressing the data summarized by Wilmoth, this perspective may be more illuminating. Demographers argue about details, but most agree that improvements in mortality at older ages will probably lead to very rapid growth in the number of octogenarians, nonagenarians, and centenarians, considerably more rapid than the official forecasts of the Social Security Administration (J. W. Vaupel *et al.*, 8 May, p. 855)(2).

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#### Bird, Dinosaur Link

Ann Gibbons's Research News article "Missing link ties birds, dinosaurs" about the discovery of the unusual Cretaceous bird *Rahonavis* (née *Rahona*) (20 Mar., p. 1851) includes commentary from two scientists who doubt that the forelimbs and hindlimbs belong to a single animal. One of the authors of the original report (20 Mar., p. 1915), Catherine A. Forster, is quoted in response that a source from two different animals cannot be ruled out, although "she contends that the hind limbs are clearly bird legs."

In fact, the study itself shows a stronger test of this hypothesis (Forster *et al.*'s note 22, p. 1919) that was not reflected in the News article. Phylogenetic analyses were run twice