

year-old answers your question about what happened at school today with a bored "Nothing," be aware that the same child could give a very detailed account of what goes on in second grade. Hearing the response "Nothing" might be less frustrating if we understood it in the context of shared social knowledge to mean what the seven-year-old no doubt intends, "Nothing out of the ordinary."

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## Memoir of an Embryologist

**Autobiography of Dr. Karl Ernst von Baer.** JANE M. OPPENHEIMER, Ed. Science History Publications (Watson), Canton, MA, 1986. xviii, 389 pp. \$25. Resources in Medical History. Translated from the German edition (Braunschweig, 1886).

Even at their best scientific autobiographies are tantalizing material for the historian or more general reader wishing to understand the scientific process. On the face of it they ought to represent the most authoritative and intimate account of science as it really was. Yet their subjectivity and the imperfection of memory make them suspect especially when they appear most revealing. One therefore starts out marveling at the conviction that lies behind the selection for publication of a volume such as this: it is not only an autobiography that makes no claims to literary merit—and is self-confessedly rambling—but one that nobody has thought worth translating since its first appearance in German in 1864. What warrants our interest in it today?

Karl Ernst von Baer (1792–1876) is frequently cited as the father of modern embryology, and whatever the exact nature of his influence (among his many contributions he clarified the organization of germ layers, described the notochord and the mammalian egg, and began a recognizably modern discussion of the significance of the initial similarities of embryos of different species and of the implications of the epigenetic emergence of anatomical organization during embryogenesis), it is clearly important to the history of biology of the period that his contemporaries and immediate successors held him in the highest regard. In von Baer's time embryology was an integral and influential part of biology in general (roughly filling the niche that evolutionary theory and genetics occupy today), so his impact was widely felt. There is good evidence, for example, that von Baer's consideration of

the "transformations" from general to specific organization seen during vertebrate embryogenesis was an important influence on Darwin's thinking. T. H. Huxley described him as a "man of the same stamp" as Darwin. But his scientific work as such is perhaps a minor aspect of the interest of this book. The book has three components: in addition to a patchy, superficial, and often recriminatory account of his scientific life, there is an extensive annotated bibliography of von Baer's publications, which cover a wide ground including medicine, comparative anatomy, anthropology, and geography. Most extensively, the book records von Baer's thinking on subjects such as education, the organization of universities, and the position of intellectuals in Russia and Germany. In this may lie its greatest value. No doubt in large measure owing to the excellent translation, von Baer comes over in an extraordinarily immediate way: inevitably his science sounds primitive, but his discussions of aims in the understanding of biological phenomena and of the practical difficulties of doing highly original research read much as if they had been written in the 1980s.

Thus in many unexpected ways the courage shown by the publishers and the scientific editor has paid rich dividends. The autobiographical form becomes increasingly valuable as a resource with the passage of time precisely because it gets increasingly hard, in any other way, to identify the nature and origin of the traditions of scientific method, communication, and organization that we are often unconsciously constrained by. Material such as this is a uniquely direct reminder to us of how slowly science changes on levels such as these.

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- Analytical Methods in Human Toxicology.** Part 2. A. S. Curry, Ed. VCH, New York, 1986. x, 354 pp., illus. \$87.50.
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