his statement "Whether Greek is compulsory or not, Latin cannot be omitted from a good education" would receive other than partial support. He would have mourned the eclipse of King James I's version of the Bible by modern translations.

This essay is of broad interest and can be recommended to all medical practitioners. It could be profitably entered into the already overcrowded undergraduate curriculum, agreeably displacing certain arbitrary, transient fashions in theories of education, including the Hydra of "multiple choice". Clear writing demands clear thinking. The more difficult the concept the more cautious, careful, and ordered the conclusion should be. In this sense, Allbutt's *Notes on the composition of scientific papers* is a good bench book, disposing of pomposity, inherited misconceptions, and nonsense. He would rather have one good, clean paper than five counterfeits, and there is a lesson in this for the research "industry" of today.

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HERVE BARREAU *et al.* (editors), *L'explication dans les sciences de la vie,* Paris, Centre National de la Recherche Scientifique, 1983, 8vo, pp. 258, Fr.90.00 (paperback).

This collection of essays explores whether modes of explanation other than physico-chemical reductionism can retain their relevance, while better accounting for both the uniqueness of the living and for biology's quest for scientific status. Of particular interest in Section 1 ('Molecular and Theoretical Biology') is René Thom's 'Dynamique globale et morphologie locale chez les êtres vivants'. It advocates a new paradigm—dynamic structuralism—as incompatible and superior to the currently dominant paradigm of molecular biology on the grounds that the new paradigm's mathematical formalism better accounts for the problem of the stability of biological form. Thom pleads for more theory while underestimating the scientific community's objections to his new paradigm, objections grounded in its lack of experimental control.

Section 2 ('Theoretical Biology and the Theory of Evolution') includes Jacques Roger's well-argued 'Biologie du fonctionnement et biologie de l'evolution' in which he develops Ernst Mayr's idea of an epistemological gap between "functional biology", i.e. experimental physiology and its later offshoots such as biochemistry, biophysics, and molecular biology; and "evolutionary biology" as epitomized in the synthetic theory of evolution. Essentially, Roger accepts Mayr's insistence on two types of biological causality and hence two types of biological epistemology: one associated with evolutionary theory which explains by telling history and the other associated with functional biology which explains processes by recourse to physico-chemical laws while decomposing the complexity of biological phenomena.

The collection concludes with Alexandre Petrovic's 'Types d'explication dans les sciences biomédicales et en médecine', a survey of medicine's dualist epistemology, oscillating between biomedical propositions grounded in criteria of truth and clinical procedures founded on criteria of effectiveness. He illustrates this survey with examples from surgery, endocrinal and cancer-related pathology, eventually discussing computer-based modelling techniques in modern medical decision-making.

Though the collection is useful in refocusing attention on the epistemological uniqueness of biomedical sciences, it falls short of explaining it. This limitation stems from the authors' confinement to neo-empiricist philosophy of science but also from their parallel entrapment in their own disciplinary ethos. Finally, the lack of familiarity with the relevant literature, in either French or English, of all but one author (J. Roger), further devalues the collection's potential use as a resource on biomedical explanation.

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JOHN PARASCANDOLA and ELIZABETH KEENEY, *Sources in the history of American pharmacology,* Madison, Wis., American Institute of the History of Pharmacy, 1983, 4to, pp. 59, [no price stated] (paperback).

This publication is an offshoot of work which led to the publication of *Archival sources for the history of biochemistry and molecular biology* (Bearman and Edsall, 1980). It has three