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In the end, however, Heywood's conclusions are unsurprising. He decides that child labour ended in industrial sectors such as textiles because rising real wages by the end of the nineteenth century allowed parents to dispense with childrens' earnings at precisely the same time that compulsory elementary education became more strongly enforced. These two factors were more effective than legal controls, which in any case were consciously gradualist, for fear of driving child labour underground and completely out of the reach of the state. These conclusions offer predictions for the Third World today: they suggest that there is no immediate hope of ending child labour without strong state enforcement through compulsory education, and even more importantly, without favourable economic conjunctures, which are unlikely to materialize in the immediate future.

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RIMA D. APPLE, Mothers and medicine. A social history of infant feeding, 1890–1950, Madison, University of Wisconsin Press, 1987, 8vo, pp. xv, 261, illus., \$39.50, \$16.25 (paperback).

Detailed studies of the history of infant nutrition are rare for all periods and all countries; consequently every new contribution to the subject is welcome. In this important and well-documented book, Apple has explored a wide and varied range of source material: medical textbooks and journals, child-rearing manuals, women's magazines, published letters and diaries, interviews with physicians and mothers, and advertising and other information relating to the development and marketing of breast-milk substitutes. She uses this to show how, and why, American mothers, who in the nineteenth century mainly breast-fed their babies, increasingly turned to artificial feeding so that, by the mid-twentieth century, the vast majority of infants were bottle-fed.

After an introductory chapter on feeding practices in the nineteenth century, the volume is divided into four sections covering the period 1890–1950. 'Infant feeding theories and infant-food products' examines medical ideas about infant feeding; how patent baby foods became established; and the interaction between the medical profession and the manufacturers of artificial infant foods. 'Infant feeding in medical practice' describes how physicians actually dealt with conflicting theories and advertising of new products; sought to find both clean milk supplies and a safe means of artificial feeding; and how, by medical education and professional pressure on food companies and mothers, bottle-feeding increasingly became the norm for American mothers. 'Scientific motherhood' deals with the ideology of motherhood and how mothers were made to feel that they were incapable of feeding their infants and therefore needed to consult a physician even when their babies were healthy. 'Mothers and infant-feeding practices' examines the mother's role: the influences and pressures placed on her by physicians, manufacturers, women's magazines and, particularly, the hospitals in which more and more mothers were delivered, and thus subjected to their regulations. A concluding chapter looks at infant feeding in the twentieth century.

Apple is strongest in her emphasis on the important role of advertising; the dynamics of the three-way relationship between the medical profession, infant food companies, and mothers; and in her understanding of the mother's confusion and problems when confronted by these imposing institutions. However, the book deals exclusively with the United States: the very few references to practices elsewhere are relegated to endnotes. This is regrettable because it is clear from her account that there were major differences between the United States and elsewhere.

For example, although adapted by some overseas physicians, percentage feeding was an essentially American invention and practice, and the introduction of this highly complex method was a key factor in the medicalization of infant feeding in the United States. Again, the American Pediatric Association persuaded patent babyfood manufacturers to remove from their labels and magazine advertisements all instructions on mixing and administering their products, thus directing bottle-feeding mothers to physicians for information and supervision.

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Apparently this did not occur in other countries, where mothers could either read instructions on the packet or write to the food companies for advice. When American mothers wrote to manufacturers for directions, they were advised to go to a physician. Although there was an "ideology of scientific motherhood" in early twentieth-century America, no mention is made of the eugenics movement, which was a major factor in the ideology of motherhood in the European and Australasian infant welfare movements in the same period.

The comparative study of these cultural and other factors, for which she calls in her final chapter, is currently being undertaken by the reviewer. In this, Apple's scholarly, readable, and well-illustrated book will provide an invaluable aid. It is recommended to all who are interested in the history of nutrition, advertising, women, childhood and the family, in addition to social and medical historians and general readers.

Valerie Fildes, Cambridge Group for the History of Population and Social Structure

JENNIFER BEINART, A history of the Nuffield Department of Anaesthetics, Oxford, 1937–1987, Oxford University Press, 1987, 8vo, pp. xiii, 214, illus., £25.00.

The Nuffield Department of Anaesthetics was 50 years old in 1987, and it was to celebrate this achievement that Jennifer Beinart was asked to write a history. This had been done before: a similar volume was commissioned to celebrate the twenty-fifth anniversary in 1962 (R. Bryce Smith, J. V. Mitchell, and J. Parkhouse, *The Nuffield Department of Anaesthetics, Oxford* 1937-1962, 1963), and in 1988 the proceedings of a meeting held in London as a tribute to mark Sir Robert Macintosh's ninetieth birthday were also published (W. D. A. Smith and G. M. C. Paterson, *A tribute to Sir Robert Macintosh*, Royal Society of Medicine), and this—inevitably—reads like a history of the Department too. Those wishing to study the development of anaesthesia at Oxford are not likely to run short of material.

It took no less than 90 years for British anaesthesia to earn sufficient respectability to permit the establishment of this, its first academic department. The work of such men as Drs Snow, Clover, Hewitt, Buxton and Boyle laid the foundations on which British anaesthetic practice is still based, but their calling was by and large disorganized, undervalued, and without status. Had the speciality continued to look solely to its other medical colleagues to recognize its academic worth, nothing would have happened for many years. As luck would have it, two men—Dr (later Sir) Robert Macintosh, who died after this book was published, and Lord Nuffield—each coming from completely different backgrounds—met by little more than chance, were impressed by each other's qualities and strengths, and exchanged ideas. As a result Macintosh was elected to Britain's first Chair of Anaesthetics in the Nuffield Department of Anaesthetics at Oxford. Three other Nuffield clinical Chairs were established at the same time at Oxford, but it is clear that few people wanted Macintosh's department to either exist or succeed. He and his pioneering colleagues had to feel their way along, realizing that any result less than perfection would be judged as complete failure by their unenthusiastic (but influential) colleagues.

Macintosh's common-sense appraisal of anaesthesia's problems, his energy and his ability to attract excellent colleagues ensured that Nuffield's venture would succeed and, as a result, anaesthesia took a great leap forward. Those same qualities also ensured that when the rigours of World War II demanded rapid increases in the scope and technology of anaesthesia Macintosh and his team—then bubbling over with ideas—were more than adequate for the task. Nor was this their only strength, for Oxford quickly became the citadel of progressive but safe, simple, and straightforward anaesthetic practice. This tradition continued for many years before being swept aside in a Gadarene rush to adopt (mainly for dubious medico-legal reasons) high technology methods: more reliance has come to be placed on supposedly "fail safe" machines than on the anaesthetists who use them. The principles which guided Macintosh half a century ago will, arguably, have to be learnt again before long.