

stated that he brought the test case on behalf of general practitioners who were caught between the uncertainty of the law and pressure from patients. This suggests that public pressure had a role to play in medico-legal developments which cannot be viewed entirely in a vacuum.

While Keown is concerned to trace the legal interpretation of biological facts, Norman Ford, a Catholic philosopher, seeks to make a moral judgement on the basis of embryological development. He brings Aristotelian philosophy to bear on scientific knowledge in order to determine when the human individual begins. In doing so Ford examines the historical significance of Aristotle's theory of human reproduction and then looks closely at the criteria for being a human individual. He argues against those who suggest that the human individual begins at fertilization. To substantiate his claims Ford guides the uninitiated reader through the complexities of embryological development to determine at what stage an ontological human begins. The complex embryology is made clear by useful diagrams and illustrations.

Ford suggests that it is not possible to speak of an ontological human being as long as it is still possible for twins to develop. He concludes, therefore, that it is at the primitive streak stage (fourteen to fifteen days after fertilization) that is the crucial moment which differentiates between a potential and actual human individual. Ford's moral interpretation of the biological facts lends support to the conclusion of the Warnock Committee that experimentation on human embryos should stop at the fourteen-day stage. However, he does not go far beyond his carefully-drawn argument to look at its wider implications.

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F. B. SMITH, *The retreat of tuberculosis 1850–1950*, London, Croom Helm, 1988, 8vo, pp. 271, £25.00.

This book, as its title suggests, concerns the declining significance of tuberculosis for human health after the middle of the nineteenth century. The author, a historian at the Institute of Advanced Studies of the Australian National University has published books on Victorian Britain, including *The people's health* (1979) in which he vividly dramatized how health problems and medical services varied between 1830 and 1910. In that book he drew attention to the importance of the physical, social, and economic environment on human health as compared to medical interventions. The underlying theme of this book is similar, but it is difficult to separate the author's research enquiries and the convictions he brings to this study.

The first chapter reproduces a table from the 51st Report of the Registrar General for Ireland comparing reported deaths in Scotland, England, and Ireland from tuberculosis between 1864 and 1914. Most readers are familiar with the decline in mortality that had begun in the western world somewhat earlier, and many are aware that as vital data began systematically to include causes of death, they revealed the contribution of tuberculosis to this decline after 1860. The fact that Ireland (and Norway) did not share this record, but rather lost ground from a relatively advantageous position in 1865 until the turn of the century is something of a shock. Smith concludes from raw mortality statistics that grinding poverty persistently overwhelmed factors that might have otherwise reduced TB mortality. At the heart of his concern is the question of whether the poor in England, Wales, and Scotland shared the benefits of reduced TB mortality and, if so, how the poor participated in and contributed to that decline. Dr Smith attempts to show the circumstances and beliefs, both social and medical, that on the one hand aggravated the impact of TB on the lower classes, and on the other hand mitigated the disease's potential for destruction to the point of reducing mortality.

In the first chapter, 'Incidence', he provides some support for the argument that TB mortality was higher where the standard of living was lower: "Tuberculosis respected rank. Few escaped exposure, but richer people had at every stage of the life cycle better chances than poor people of escaping infection or of enjoying a remission or cure" (p. 10). Equally important, risk of disease is associated with resistance as well as with exposure to the tubercle bacillus, and poverty is, and was recognized between 1850 and 1950 as, evidence that the capacity to maintain or enhance resistance is compromised. Smith identifies the deliberate

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spacing and limiting of births as the means the lower classes adopted to approach some of the advantages enjoyed by the more prosperous. In line with recent analyses of the contribution of nutrition to increased longevity, Smith argues that better nutrition, the most consistent benefit of smaller families, increased natural resistance to TB among children of the poor. Although Smith does not make much of the reduced crowding that could have resulted from smaller families, density of population is a key factor in the transmission of TB infection.

This promising introduction to important issues is badly undermined by Smith's simplification of the historical context and by careless research that often produces inadequate support of his thesis and sometimes inaccuracies. There is virtually no documentation for the challenging proposition that mortality decline among the poor was the consequence of family limitation. Instead Smith provides abundant but apparently unsystematic accounts of incidents that illustrate limited responses to the needy and the diseased and to contemporary medical-scientific knowledge. Inadequate social resources, institutions, and practices are pointed out, and the economic and ideological structures that supported and legitimized poverty and inequities are treated as inconsequential background data. Smith may view these as minor obstacles that good men should overwhelm, but there are few good men in his story. He presents early nineteenth-century understanding of tuberculosis in a 24-page chapter titled 'Etiologies', that includes an interpretation of resistance to Jean Antoine Villemin's demonstration of tubercular contagion and Robert Koch's identification of the tubercle bacillus. English rejection of Villemin's work is based on repeated quotation of two articles, one by "the early social Darwinist" Charles Drysdale and the other by J. S. Burdon-Sanderson. More damaging, Dr Smith's compressed picture of constitutional infirmity lays the ground for ridicule of nineteenth-century holistic concepts of causation. Smith might better have pointed out that the concept of a diathesis in which heredity and disease-breeding environments were factors resisted "reductionist" germ theories. Without this foundation it is misleading to say that Koch's ideas were contested as Villemin's had been before because "His findings devalued current therapeutic practices and overturned traditional structural comprehension of the disease" (p. 48).

In his earlier work Dr Smith disclaimed expert knowledge in the history of disease and medicine. That caution does not, unfortunately, influence his sampling of statistical and textual support for this book. Admittedly, historical research on the impact of specific diseases has not yet produced the kind of detailed analysis Dr Smith needs. Nonetheless, his conclusions appear all too often in the service of beliefs about the limitations of social intent and medical service. However plausible these conclusions, they are undermined by decontextualized evidence and errors of fact: Koch's mistaken views on bovine TB are better understood in the context of his fear that the campaign diverted infected attention from pulmonary TB; bull-vaccine, not BCG, is used with "tuberculosis-positive children" (pp. 182, 202).

This book promises more than it delivers. Almost every chapter includes interesting ideas and information, but rambling chronology and repetitive argument make it difficult to follow. The decline of tuberculosis remains a critical subject for historical research.

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ROY MacLEOD and MILTON LEWIS (eds.), *Disease, medicine and empire: perspectives on Western medicine and the experience of European expansion*, London and New York, Routledge, 1988, 8vo, pp. xii, 339, £45.00.

This collection has three stated aims: first, to show the scope of current research on the political, racial, military, and economic aspects of European medicine "overseas", especially in the nineteenth century; second, to illustrate the characteristics of European medicine in the "settler colonies" of the British Empire; and third, to explore the effects of epidemic diseases and racial theories on the status and practice of European medicine in colonial territories. Though the main emphasis is on the British Empire, some comparative work on French, German, and Belgian colonies is also included. The chronological scope is mainly nineteenth