brings added value to the study of pain and suffering?

For teachers like me who are planning to co-teach a course on religion and medicine, in my case to students from Harvard Medical School and from Harvard Divinity School, this collection is a step forward, but it would have been more helpful if it had set up an ongoing dialogue between its two parts, forcing scholars who are comfortable analysing either medical or religious materials to have to confront both together in a critical inquiry on pain and suffering as simultaneously medical and religious phenomena.

Dominik Wujastyk begins to get at this issue in his chapter on demonic vengeance in classical Indian medicine, as do Helen King in her solid review of medicine and religion in the ancient world, Carole Rawcliffe on medicine for the soul in medieval England, and Mike Saks on the religious aspects of alternative medicine. These efforts at interaction, which are limited, only contribute to the sense that, in spite of world-class individual contributors, a larger and to my mind less usual opportunity has been missed.

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William K Livingston, Pain and suffering, ed. Howard L Fields, Seattle, IASP Press, 1998, pp. xvii, 250, \$48.00 (0-931092-24-8).

This excellent book has considerable contemporary as well as historical interest. It has an unusual history. William K Livingston (1892–1966) was educated at Harvard but returned to the West Coast in 1922 to work mainly as a neurosurgeon at Portland, Oregon. In the Second World War he served in the Navy, concentrating particularly on peripheral nerve injuries. In 1943 he published a much neglected book *Pain mechanisms* (New York, Macmillan).

For the rest of his life, he wrote steadily about the problems of pain and, by the time of his death in 1966, the manuscript which is the basis of this book was complete. It languished in the library of the University of Oregon. In 1992 John C Liebeskind began the 'History of pain project' at UCLA and, in 1995, the manuscript was located and is now published by the International Association for the Study of Pain. It is cleverly edited by Howard L Fields, the professor of neurology at UCSF.

The contemporary value of the book is that it records Livingston's intellectual struggle with his dissatisfaction with the specificity theory of pain which was entirely accepted during most of his career. The main source of his ideas came from both careful examination and from listening to patients. He rejected the explanations offered by the specificity theory which assumed that pain was produced only by activity in hard-wired line labelled nerve fibres and tracts. He showed that pain mechanisms had to be plastic and to change from one state to another during the course of disease. He was strongly affected by the neuroscience of the time on the basis of activity in a central core of the brain stem which accompanies appetitive states and generates aversive behaviour. This view was made more precise by Livingston's loyal student, Ronald Melzack, now professor of psychology at McGill in Montreal, who proposed a double mechanism, one for the sensory-discriminative fraction of the sensation of pain and the other responsible for the affective motivational aspect of pain.

These ideas are developed through an excellent examination of clinical examples. These include visceral pain, the pain in blood vessels, peripheral nerve injuries, causalgia, phantom limb pain, and glomus tumours. These chapters are as good as any to be read in modern textbooks of pain in their detailed description of what is observed and the manner of the patient's suffering. He illustrates his struggle to come to a new understanding of these old

phenomena by chapters on the way in which others have thought. There is a particularly incisive chapter in which he goes back to Johannes Müller and shows that Müller was in fact much subtler than the crude interpretations of his work which were used to justify the rigid specificity theory of sensation. It is particularly interesting to compare this book with Pain by William Noordenbos (Amsterdam, Elsevier, 1958). Noordenbos was a Dutch neurosurgeon, struggling to understand pain mechanisms at the same time as Livingston. This book too relied on careful clinical observation which made nonsense of the accepted explanations and which proposed a shifting mechanism involving integrated core structures in brain and spinal cord. Livingston's book will reward anyone dealing with patients in pain today, as well as giving an insight into the struggles of a sensitive, intelligent man attempting to make sense of sensory mechanisms some fifty years ago.

> Patrick D Wall, London

Elizabeth Malcolm and Greta Jones (eds), Medicine, disease and the state in Ireland, 1650–1940, Cork University Press, 1999, pp. x, 278, £40.00 (hardback 1-85918-110-4), £15.95 (paperback 1-85918-230-5).

This, the first substantial survey of disease and medicine in modern Ireland, goes a long way towards answering some of the crucial questions its editors outline in their introduction. Irish historians have long been aware that eighteenth-century Dublin was a centre of medical education which rivalled London and Edinburgh, and that Ireland witnessed significant advances and breakthroughs in health care provision over the next two centuries. However, these important considerations have not been related to some of the broader questions

that have been asked by historians of medicine and disease in comparable societies. As the editors quite rightly point out, the history of Irish medical institutions such as hospitals has proliferated while broader, more encompassing studies have not. We do not know enough about why Ireland became a centre of medical education, neither do we know why voluntary and state hospitals proliferated in the country from the beginning of the eighteenth century or why this expansion declined by the twentieth. This volume endeavours to begin to provide answers to some of these questions, or, at the very least, to suggest ways in which such answers might be found. It is largely successful in this endeavour. The editors have taken a broad period and included articles on a wide range of topics which examine issues of health, illness, and health care provision. In doing so they have succeeded in addressing some of these central questions and, importantly, in relating them to wider issues that are crucial to any understanding of modern Irish history.

The book is divided into three sections: 'Medicine', 'Disease', and 'The State'. The first section provides the broadest chronological sweep with articles on aspects of medicine from seventeenth- to nineteenth-century Ireland. The second focuses more exclusively on developments in the nineteenth century, while the third is stronger on the early and very modern periods. The articles range from quite narrow examinations of particular events and people, to broader explorations of ideas and issues. There are—inevitably—gaps: the collection is stronger on medicine and disease than it is on the state and some articles are undoubtedly stronger than others. This is hardly surprising for a work of this kind, and it is a very minor criticism of a book which illuminates so much about each particular period. Some of the contributors, notably Mary Daly, James Kelly and Maria Luddy, are well known for their work on other aspects of modern Irish