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BOOK REVIEW (NON-REFEREED)

Numeracy as Social Practice: Global and Local Perspectives

Edited by Keiko Yasukawa, Alan Rogers, Kara Jackson and Brian Street

Routledge, London and New York, 2018, 260 pages

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This book aims to deepen understandings of numeracy as social practice. To this end, it draws on a number of conceptual strands developed over recent years in mathematics education and adult educational research, but so far applied unevenly across areas of adult mathematics education. The strands considered are: a situated perspective (drawing on the well-known work of Lave 1998; Nunes, Schliemann & Carraher 1993; and others); CHAT (Cultural, Historical Activity Theory), drawing on Engeström 2001; FitzSimons 2005; Triantafyllou and Potari 2010); Literacy as Social Practice (e.g. Street, Baker and Tomlin 2005); and ethnomathematics (e.g. Knijnik 2002). The book brings these strands together to focus on numerate activity ranging across more than a dozen richly described contexts (selected from every continent) - with special attention to the distinctive tools used in different activities, as well as to the role of ideologies in legitimatising different versions of mathematics.

Throughout, the book explores the relationship between formal mathematics education and everyday numeracy practices - that is, practices where numerate, spatial, probabilistic, and/or quantitative signifiers are prominent. It is divided into three parts. The chapters in Part I describe a number of numeracy practices, with special attention to 'what "surrounds" the numeracy practices, what it is that gives them meaning' (p. 19). The chapters here highlight the importance of measurement, and of spatial awareness, topics that are of crucial interest in mathematics education generally. Part II provides a useful survey of the resources that

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may be utilised to study the interactions (or lack of them) between traditional mathematical classrooms and what learners bring from their own life experience. Part III gives insights into the role played by power, in making sense of what numeracy is learned or can be learned, by whom, and for what purposes. I found the alternatives to the *status quo* that the book offers especially hopeful; for example, its focus on curricula embodying perspectives harmonious with this book's message, in Indian primary schools and in Botswana's National Literacy Programme; and also on opportunities for developing 'critical numeracy practices' in workplaces where changing activity systems resulted in new numeracy practices.

The final chapter by the Editors pulls out emergent themes, a number of them rather novel. The book usefully foregrounds ongoing discussions in adult mathematics education about the need to 'make visible' the mathematics in everyday numeracy practices. This discussion articulates the concept and practices of *invisibilisation*, the making invisible for ideological reasons of non-school numeracies by those from 'outside' the practices concerned. Sometimes workers themselves may not notice that their work is mathematical, or may discount the degree of mathematical skill or knowledge involved, for example in the skilled estimation of quantities, illustrated in Part I. Numeracy practices are clearly shown here to be fluid and unstable over time. Thus, as the world, so highly regulated by laws and policies, changes, so must actors and their practices change, including their numeracies. And to say that numeracy practices are political is to acknowledge more than their bases in power relations. As one of Keiko Yasukawa's chapters shows, in order to effectively 'uncover and act' against oppressive salary structures, casual university academics needed to pair numerate insights with 'negotiating knowledge'.

With such a range of ethnographic studies reported within its covers, the book is able to document that 'when local practices were examined ethnographically, those who used them drew no distinction between literacy and numeracy practices' (p. 251). This book provides much food for thought, for those researching or teaching in the often institutionally separated areas of 'literacy' and 'numeracy', and indeed for readers of this journal.

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