
ZMATH 2011f.00254**Brown, Tony****Mathematics education and subjectivity. Cultures and cultural renewal.**

Mathematics Education Library 51. Berlin: Springer (ISBN 978-94-007-1738-1/hbk; 978-94-007-3744-0/pbk; 978-94-007-1739-8/ebook). xi, 216 p. (2011).

I believe that this book makes a very important contribution to the developing dialogue concerning the nature of mathematics. It resonates with the arguments of George Lakoff and Rafael E. Nuñez against “The Romance of Mathematics” [*G. Lakoff* and *R. E. Nuñez*, Where mathematics comes from. How the embodied mind brings mathematics into being. New York, NY: Basic Books (2000; ME 2002f.04631, Zbl 0987.00003), pp. 339–340]. Lakoff and Nuñez list seven beliefs in The Romance, the first two of which are: “1) Mathematics is an objective feature of the universe; mathematical objects are real; mathematical truth is universal, absolute, and certain and 2) What human beings believe about mathematics therefore has no effect on what mathematics really is. Mathematics would be the same even if there were no human beings or beings of any sort. Although mathematics is abstract and disembodied, it is real.” Just as Lakoff and Nuñez argue against the romance and show that mathematics is a product of the human mind, this book presents a compelling argument that mathematics is in fact a meme, i.e. “an idea, behavior or style that spreads from person to person within a culture.” A determination of whether mathematics is subjective or objective has far-reaching consequences for how it is learned and taught. From the Professor Brown’s Introduction: “This book is centrally concerned with how we represent mathematical teaching and learning with a view to changing them to suit new circumstances. It considers teachers, students, and researchers. It explores their mathematical thinking and the concepts that this thought produces, concepts that shape subsequent thought. The book examines some of the linguistic and cultural filters that influence mathematical understanding in schools. But above all it is concerned with how we understand ourselves in relation to the school-learning contexts that produce mathematics The attitude of the proposed reconsideration is to think of the purpose of school mathematics as being to provide filters on life, a grammar through which we tell stories of life. That is, mathematics provides a way of making sense of life, or modeling life. It also presents frameworks, or analytical apparatus, against which life is constructed. But, in particular, mathematics gives us ways of seeing how we are all a part of that life, with the capacity to change that life, and to be changed by it. The book proposes that mathematics can provoke us to think differently about our environments, whether they are spatial, social, cultural, educational, philosophical or political, as successive chapters examine. This reorientation might enable us to build our world differently. Part I of this book is a portrayal of how learners and teachers in different cultural settings construct mathematical knowledge according to their particular social needs Part II focuses on renewal. There is a common propensity to see scientific activity in general and mathematics in particular, as being concerned with eternal entities The book argues that mathematics needs to be centered in an attitude of experimentation and critique, to support ever-fresh approaches to the new challenges that we will surely face. Mathematics itself can be responsive to life and not just serve as a stable point of reference Some examples are offered of how re-conceptualizations of the philosophical environment might enable us to trigger classroom mathematical activity towards more futuristic possibilities. Here learning is understood as participation in cultural renewal [The concluding chapter] gathers some remarks on how we might understand the interface of mathematics with humans. Subjectivity is depicted as embracing both our physical experience of the world and our capacity to symbolize this experience. Ultimately teachers, students and researchers need to be attentive to how they are subject to restrictive encounters with mathematics and with each other.”

*Steven C. Althoen (Holly)**Classification:* C90 C60 C50 D30*Keywords:* subjectivity; curriculum reform; Jacques Lacan

doi:10.1007/978-94-007-1739-8