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Between people-pleasing and mathematizing: South African learners' struggle for numeracy.

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Summary: The reported research attempts to trace possible reasons for third grade learners' limited progress in numeracy in a low socioeconomic status (SES) South African context. This is done through two lenses, both stemming from Sfard's commognitive (The term "commognition" has been offered by *A. Sfard* [Thinking as communicating. Human development, the growth of discourses, and mathematizing. Cambridge: Cambridge University Press (2008; ME 2011d.00346)] as an amalgam of "cognition" and "communication," thus expressing the unity of these concepts. Since its original appearance, some authors (including Sfard herself) have preferred using the word "communicational" to describe Sfard's framework. We chose to stick with "commognitive" because we believe it clearly points to the specific theoretical stance presented in Sfard [loc. cit.], whereas "communicational" might point to many other theories or frameworks that have something to do with human communication.) framework. One lens aims to analyze two learners' (Mina and Ronaldo (all names are pseudonyms)) mathematical and identity discourse both in one-on-one interviews and in a small group "math club" lesson led by the second author. The other examines the mathematical milieu in which these learners have participated through the analysis of a school mathematics lesson which exemplifies prevalent instructional practices in this milieu. Relying on the distinction between ritual and explorative participation, we show that while Mina was acting in an extremely ritualized manner, Ronaldo was more explorative in his actions. However, the milieu, as seen in the school lesson, encouraged almost exclusively ritual participation. Thus, while Mina was identified as a good student, Ronaldo was identified as an outcast or "troublemaker." We conclude by drawing implications to the tenacious nature of rituals in the mathematics classroom and the effects that these rituals may have on students' identities.

Classification: C60 C30 C70 C50 C20

Keywords: commognition; ritual learning; explorative learning; identity; discourse; struggling students; mathematical milieu; learning difficulties

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