

ARE WE (OR SHOULD WE BE) ON THE SAME PAGE?

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Clarity is high on the list of details that consume an editor's attentions. As I work with authors to prepare manuscripts for publication, the same questions seem to pop up again and again in the desire for precise and unambiguous expression: Does the title reflect the article's principal themes? What's the referent of the 'this' in that sentence? Is the caption for the figure both descriptive and concise? Is the transition from one thought to the next smooth? Are terms adequately defined and consistently used?

Unfortunately, the process of tending to the trees can sometimes obscure the forest – as I realized while taking part in the Symposium on the Occasion of the 100th Anniversary of the International Commission on Mathematical Instruction in Rome (February 2009). When participating in a working group on “Disciplinary Mathematics and School Mathematics” (organized by Bill Barton and Frédéric Gourdeau), I had opportunity to listen to mathematicians and mathematics education researchers from around the world speak to the relationship between the experiences that educators structure for children and the experiences that mathematicians structure for themselves.

To put it gently, the range of opinion was broad. As I struggled to make sense of various assertions and assumptions, I settled on the strategy of analyzing the metaphors, images, and analogies employed by different presenters. Sometimes these were explicit, but most often they were not. For example, among the many devices used to characterize the relationship between school mathematics and disciplinary mathematics were Venn diagrams (*e.g.*, How do these sets intersect, if at all?), a pyramid (*e.g.*, How does school math support the edifice of cultural mathematics?), apprenticeships (*e.g.*, How is school math like music training or football camp?), different points on a line or trajectory (*e.g.*, How should school math be organized to ensure the preparation of sufficient numbers of research mathematicians?), and co-implicated-but-discernible cultural projects. The list goes on.

Needless to say, with individual commentaries organized around very different models, there was some frustration in the more general discussion. Clearly, the connection between what goes on in school classrooms and what goes on in the coffee room of the Cambridge mathematics department will be understood differently when those activities are interpreted as, for example, either points on a continuum or differentiated cultural enterprises.

Anne Watson's article in this issue of *For the Learning of Mathematics* is based on her contribution to the above-mentioned working group. It prompted considerable

discussion at the meeting – partly, I suspect, because Watson offered many entry points for participants. Most of the frames mentioned in the preceding paragraphs were woven into the paper she presented. Although hardly harmonious, the working group discussion was engaged and productive – and my sense was that all participants were compelled, to some extent, to interrogate their own frames.

It didn't come as a surprise, then, when Watson's manuscript was met by some conflicting responses by FLM reviewers – from “*must* be published as is” to “unpublishable”. Emboldened by one reader's note that David Wheeler (FLM's Founding Editor) was passionate that all learners have the right to authentic mathematical experiences, Watson and I agreed to invite brief responses from mathematics education researchers, mathematics teachers, and research mathematicians. The responses received so far, along with an ‘Afterword’ by Watson, are included in this issue. (Readers are invited to extend the conversation, perhaps through ‘Communications’ in upcoming issues.) These commentaries reveal that, if anything, we must guard against a singular characterization of the complex and ever-evolving categories of school mathematics and disciplinary mathematics.

Considered together, the responses also foreground the ‘difficult’ fact that *clarity* and *obfuscation* aren't antonyms. The seemingly ‘clear’ often works only because of what has been pushed into the shadows, and what comes across as ‘obfuscated’ may seem so because it breaks the smooth surface of what is being taken for granted. Perhaps clarity and obfuscation are inevitable complements, not opposites. As Watson's article and the responses it has prompted show, we face an unavoidable tension, striving to be on the same page while reading from different scripts. The challenge isn't to bypass this tension; it is to use it productively.

The other articles included in this issue are consistent with this sensibility, so integral to FLM, of interrogating assumptions and models that shape insights while elaborating the constraints and affordances of those insights. For example, complementing the discussion triggered by Watson, Elizabeth Mowat recasts the notion of *connections* by drawing on network theory to characterize both mathematics and the learning of mathematics. Irit Peled and Orit Zaslavsky look at a different phenomenon – meta-knowledge about procedures – in their discussion of connections. Anne Roy invites us to look across the entangled projects of philosophers and teachers of mathematics. Finally, in the last installment of his three-part article, Paul Ernest continues the effort of making sense of mathematical texts, entwined as such texts are in projects of mathematics and education.