Cognitive processes can be considered as functions of activity systems in which individuals participate. Several analyses have shown that successful cognitive functioning depends on ways that individuals are positioned in participation structures of interaction, regarding each other and regarding the subject-matter domain of their activity. Concepts of individuals’ knowledge and cognitive processes have not played significant roles in these analyses.

This talk will present findings from research in progress that is focused on continuities of individual students over time in the activity systems of mathematics classrooms, especially students’ and teachers’ constructions of being or not being “good at math.” We are developing a concept of mathematical identity to understand ways in which individual students come to be positioned in classroom interaction, including the knowledge they are understood to acquire and their characteristic ways of participating in classroom activities.