The secondary-tertiary transition (STT) has received increased attention in recent decades. We conducted a small pilot study in 2019 (with 12 participants), in which we sought to gain an understanding of salient features of the STT experienced by pure mathematics majors (including students preparing to teach mathematics in secondary school). The research question guiding the pilot study was: In what ways are students’ perceptions on the nature of mathematics related to their affective and emotional response to the transition from school to university mathematics? We first interviewed students to capture their experiences along three dimensions of interest (emotional disposition towards mathematics, vision of mathematics, and perceived competence in mathematics). Next, an analysis of the interviews aided our design of a supportive intervention, which confronted aspects of the STT via an examination of the (historical) changes in the nature of mathematics (in this case, related to the concept of derivative). Data collected during the short (4-day) seminar include survey responses, video recordings of seminar sessions, student reflection diaries, and student work samples. In our talk we will present initial findings and discuss how this work informs future STT research. (Received September 17, 2019)