Tell Them We are Rising
Serving More than a Pipeline Through Humanistic STEM Education

Guest Lecture by Tesha Sengupta-Irving
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Abstract: This event is organized around a short essay, followed by a roundtable discussion for all. The essay is one of a series presented at a symposium recently tasked with responding to a special issue of Anthropology of Education Quarterly, published three decades ago. In that issue, Harry F. Wolcott asked, “What anthropological ideas related to learning should we be promoting?” This paper considers this question in relation to U.S. STEM education, which is undergoing a sea change of reforms. In answer to Wolcott’s question, this essay problematizes and extends two ideas proposed in the special issue: (1) orienting to learning as becoming (Wolcott, 1982); and (2) attending to the mutual influence between social organization and individuals’ acts in the immediate circumstances of their doing (Erickson, 1982). Together, these propositions center the learner as an active and knowing agent in learning, and find in her actions what affords or constrains learning within and beyond the immediate view. This essay considers the prevailing master narratives of STEM education in schools and the nation, alongside historical accounts of African American education in the 19th century. Doing so unsettles the familiar logic of neoliberal STEM education today, which presupposes who and what mathematically capable children should become, and learn. In its stead, this analysis proposes the value of humanistic STEM learning – which an anthropology of learning could mobilize – that tilts children’s learning of disciplinary content and practices back toward their human and social origins. Doing so would make strange the national rhetoric that equates empowerment with the numeric representation of (women’s and minorities’) bodies in a figurative “STEM pipeline.” As important, it would insist on an expansive understanding of what mathematical learning involves, and who or what mathematically capable children will become.

Bio: Tesha Sengupta-Irving is an Assistant Professor of Education and Affiliate of Gender & Sexuality Studies at the University of California, Irvine. Her research critically explores pedagogy that promote disciplinary learning and community in racially and linguistically diverse mathematics classrooms. She earned a Ph.D. in Mathematics Education from Stanford University and completed her postdoctoral studies in education at the University of California, Los Angeles. Her prior experiences as an electrical engineer (B.S.E.E. University of Illinois, Urbana-Champaign) and secondary mathematics teacher (Compton Unified School District) grounded her commitment to redress racial, class and gender inequities in math and science education. She is also affiliated with the Center for Research on Teacher Development and Professional Practice.