

*You Say Brutal, I Say Thursday: Isn't it Obvious?*¹

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Programmatic collaborations involving mathematicians and educators in the U.S. have been valuable but complex. (e.g., Heaton & Lewis, 2011; Bass, 2005; Bass & Ball, 2014). Sultan & Artzt, 2005 offers necessary conditions for successful collaborations (p.53), including trust and helpfulness. Articles in Fried & Dreyfus (2014) and Bay-Williams (2012) describe outcomes from similarly collaborative efforts; however, there is a gap in the literature in attending to how race and gender intersect with issues of professional status, culture, and standards of practice. Arbaugh, McGraw and Peterson (2020) contend that “the fields of mathematics education and mathematics need to learn how to learn from each other - to come together to build a whole that is greater than the sum of its parts” (p. 155). Further, they posit that the two must “learn to honor and draw upon expertise related to both similarities and differences' ' across disciplines, or cultures. We argue that in order to do this, we must also take into account race, gender, language. For example, words like *trust* or *helpfulness* can read very differently when viewed from personal and professional culture, gender, or racial lenses.

This poster shares personal vignettes from the perspective of three collaborators – one black male mathematician, one white female mathematics educator, and one white woman who was trained as a mathematician but works as a mathematics educator - illustrating some of the complexity of collaboration. The title of the poster comes from a moment in conversation among the authors. One of the women, recalling a conversation with the mathematician, said, “oh, that conversation was brutal,” without acknowledging or considering the history and potential painful ramifications of the word “brutal” when used about an interaction between a white woman and a black man - ramifications that could create barriers to collaboration. The mathematician returned with, “you say brutal, I say Thursday,” meaning that the conversation was totally within the norms of a conversation between mathematicians. The vignettes in the poster serve as a contribution toward an eventual framework for studying and discussing intersectionality in collaborations in education.

We come to this work embodying a "humanistic perspective of mathematics as a discipline that drives and is driven by human endeavor "(PME-NA equity statement). Mathematics is deeply connected to the stories and histories of the people *doing* the mathematics. There has been a long history of positioning mathematics educators and mathematicians in problematic ways. Even more troubling is the way in which marginalized

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groups are positioned with respect to mathematics. Not attending to these critical identities falls short when we try to understand the goals, outcomes, and effects of collaborations between mathematicians and mathematics educators.

References:

Arbaugh, F., McGraw, R. & Peterson, C. (2008). Collaborations between Mathematics Educators and Mathematicians for Mathematics Teacher Education in the United States. In G. Lloyd and O. Chapman (Eds.) *The International Handbook of Mathematics Teacher Education, Volume 3*. Leiden, The Netherlands: Brill. pp. 153-181.

Association of Mathematics Teacher Educators. (2017). *Standards for Preparing Teachers of Mathematics*. Available online at amte.net/standards.

Bass, H. (2005). Mathematics, mathematicians, and mathematics education. *Bulletin of the American Mathematical Society*, 42(4), 417-430.

Bass, H. (1997). Mathematicians as educators. *Notices of the American Mathematical Society*, 44(1), 18-21.

Bass, H., & Ball, D. (2014). Mathematics and education: Collaboration in Practice. In M.N. Friend & T. Dreyfus (Eds.) *Mathematics & mathematics education: Searching for common ground* (pp. 299-312). Dordrecht: Springer.

Bay-Williams, J. (Ed.) (2012). *Professional collaborations in mathematics teaching and learning: Seeking success for all - 74th yearbook* (pp. 229-242). Reston, VA: National Council of Teachers of Mathematics.

Conference Board of the Mathematical Sciences, The Mathematical Education of Teachers, American Mathematical Society, Providence, RI, 2001, http://www.cbmsweb.org/MET_Document/index.htm.

Fried, M. & T. Dreyfus (2014). *Mathematics and Mathematics Education: Searching for Common Ground*. Dordrecht, The Netherlands: Springer.

Gottlieb, L. (2019). How changing your story can change your life. Retrieved from https://www.ted.com/talks/lori_gottlieb_how_changing_your_story_can_change_your_life?language=en

Gutiérrez, R. (2018). Introduction: The need to rehumanize mathematics. In I. Goffney, R. Gutiérrez, & M. Boston (Eds.), *Annual perspectives in mathematics education: Rehumanizing mathematics for black, indigenous, and latinx students* (pp. 1-10). Reston, VA: The National Council of Teachers of Mathematics

Heaton, R. & J. Lewis (2011). A mathematician-mathematics educator partnership to teach teachers. *Notices of the American Mathematical Society*, 58(3), 394-400.

Prasad, P., McGraw, R., & Blackburn, C. (2011). Integrating content and pedagogy in secondary teacher preparation: Collaborating across the disciplinary boundaries of mathematics and mathematics education. In L.R. Wiest & T. Lamberg (Eds.), *Proceedings of the 33rd Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1476 - 1484), Reno, NV: University of Nevada.

Su, F. (2020). *Mathematics for Human Flourishing*. New Haven, CT: Yale University Press.

Sultan, A. & Artzt, A. (2005). Mathematicians are from Mars, math educators are from Venus: The story of a successful collaboration. *Notices of the American Mathematical Society*, 52(1), 48-53.