1144-97-190 **Aditya P Adiredja*** (adiredja@math.arizona.edu), The University of Arizona, ENR2 Rm. S317, 1064 E. Lowell St., Tucson, AZ 85719. *Constructing and Analyzing Everyday Examples about Basis: An Anti-deficit Approach in Teaching.*

I share insights about anti-deficit perspectives in teaching from my recent studies about basis in linear algebra. Instead of focusing on students' misconceptions and lack of knowledge, the perspective focuses on productive resources students bring to learn mathematics. In my research about basis, we asked students to construct an example from an everyday context that captures the definition of a basis and then to critique it mathematically. The first set of data comes from individual interviews with 8 undergraduate women of color. They altogether constructed 22 different examples using contexts like friendship and religion. Arguing against dominant deficit narratives about women of color in mathematics, the women presented their creativity and offered productive learning resources. We learned that this task was productive in uncovering some of these resources. A mathematician colleague was inspired by the findings and decided to implement this task independently in her course. She found similar creativity and higher level thinking in her students' responses. Together we were able to deepen our knowledge of what it means to approach students' work from an anti-deficit perspective. We use these insights to generate a conversation about this practice in undergraduate mathematics. (Received August 24, 2018)