Graphs of functions are commonplace in mathematics. They can be used as a source of reasoning for student problem solving and can support student understanding of mathematical concepts. Recent research at the postsecondary level has found that students have a variety of understandings of graphs of functions. My research aims to understand how students’ different meanings for the graph of a function may impact the meanings they develop for various calculus concepts, such as derivative. In this presentation, I draw on the location-thinking and value-thinking constructs of David, Roh, and Sellers (2018) to describe students’ thinking about outputs of functions and connect these forms of thinking to students’ understanding of differences of outputs. Theoretical and inductive thematic analyses were conducted to code clinical student interviews. This presentation will include preliminary themes and potential sources of variation of students’ thinking about outputs of functions and differences of outputs. (Received September 17, 2019)