

# ***Metonymy and Metaphor: How Language Can Impact Understanding of Mathematical Concepts (Part I)***

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## ***Abstract***

The language phenomena of metonymy and metaphor affect the ways that instructors and students talk about mathematical concepts. In everyday language, metonymies are used to condense ideas into shorter phrases for efficiency or emphasis and metaphors are used to make connections between ideas. Not surprisingly, these uses occur in our mathematical language as well. This article illustrates these phenomena with quotes of students talking about or solving problems related to the concept of derivative. In this article, Part I, the focus is on metonymic language. Part II will focus on metaphor and discuss how the interplay between metaphors and metonymies can help students understand the concept of derivative.



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