# SIGBOVIK 2014 Paper Review

## Paper 9: A Simple Category-Theoretic ...

**Reviewed by: Ed Morehouse (Carnegie Mellon University)**

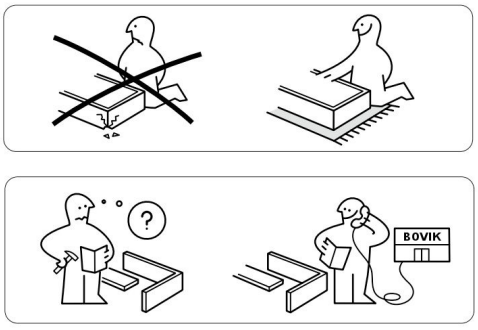
"A Simple Category-Theoretic Understanding of Category-Theoretic Diagrams" by "Stefan Muller" is a work of incomprehensible abstract nonsense, and as such, constitutes a valuable contribution to the field of category theory.

The article seems to be about understanding category theory through the graphical language of commutative diagrams. I say, "seems to be", because after gleaning this much from the abstract, I decided to test (what I assume to be) the article's central thesis by attempting to understand the article itself by just looking at the pictures.

I infer that the article begins by describing the basic properties of morphisms in a category under composition and identity – although it could be talking about something else entirely, it's kind of hard to say. The next bit seems like it might be about constructing a category whose objects are themselves commutative diagrams and whose morphisms are affine transformations of such[1].

The paper ends by constructing the "Morehouse-Sierpinski $\omega$-category of commuting squares" (let's call it). Although "Muller" has (for all I know) now solved a long-standing open problem in higher dimensional category theory by giving a finitary, constructive presentation of this important category, there is still currently no type-theoretic interpretation (that I could think of in 5 minutes), nor are current LaTeX diagram-description packages adequate for drawing $\omega$-dimensional commutative diagrams. I'll just assume that "Muller" leaves these issues for future work.

**Rating:** I give this article the terminal rating in the co-op of the bicategory of journal reviews.
**Confidence:** What am I supposed to put here?
Why are the instructions not presented in picture-form, like the ones for assembling my bookshelf:




[1] note to self: ask "Muller" what the paper is really about, then reject it and steal his idea.