

ZMATH 2010f.00311

Roth, Wolff-Michael

Incarnation: Radicalizing the embodiment of mathematics.

Learn. Math. 30, No. 2, 8-17 (2010).

From the introduction: The purpose of this article is to articulate an alternative to standard embodiment approaches. The standard approaches to embodiment do not make the *categorical* distinction widely discussed within phenomenology, the one between the body and the flesh. I suggest taking the flesh rather than the body as the ground of all knowing: knowledge as incarnated, enfleshed. Because it is enfleshed, mathematical knowledge also is embodied. It is the flesh where we find tact (touch), contact, and contingency, and therefore, the ground of knowledge so that the sense of the body comes to be the body of sense. To anchor the discussion, I begin with a fragment extracted from a video record of a second-grade classroom in which teacher and students have embarked to study geometry. This fragment has an exemplary function and has been selected on pragmatic grounds from a large number of structurally similar instances in my data sources. I then articulate a conceptualization of embodiment, or incarnation, grounded in the work of a little-known 18th and 19th century French philosopher Maine de Biran, whose work has found prominence more recently in *material phenomenology*. A materialist phenomenological approach theorizes knowing beginning with very primitive forms of experiences that precede mind and intention.

Classification: C30 D20

Keywords: conceptualization of mathematical knowledge; materialist phenomenology; phenomenological sociology; conceptualization of mathematics in the flesh; mathematics and philosophy; senses; cognitive ability; cognitive psychology; thinking; knowledge; theory of mathematics education