

Philosophy Seminar

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**Friday, May 20, 2016
AA-3020 at 3:30pm**

Kantian notion of schema and mathematics education

Abstract:

How are people's thoughts related to their sensory experiences? How is theoretical (and mathematical) knowledge about physical world acquired? Reflecting on two distinct epistemologies present in his time in empiricist and rationalist traditions, Kant arrived at the notion of schema. His standpoint was in opposition to both, reliance on solely empirical nature of knowledge and reduction of knowledge to pure logic and didactical reasoning. Most importantly, Kant was questioning the model of mind as a passive receiver of either impressions or well-formed ideas ready for analysis.

For Kant, the schema is a representation of a procedure that reveals the link between mental concepts and impressions or senses in the course of individual's action. In other words, Kant proposed that the mind of the learner is active as it systematizes and structures his representations of the external world; it guides, interprets and schematizes all his experiences. This claim was ambitious, challenging and influential on later psychological account of the mind.

In this talk I will trace the development of Kantian notion of schema in some contemporary theories of the learning of mathematics.

This talk is a part of "Kant and Education" conference organized by the Dept. of Philosophy, MUN, May 19-20, 2016.
http://www.mun.ca/philosophy/KantandEducation_programme.pdf