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*Platonism, Cognitive Science and Learning Mathematics: a Wittgensteinian response to exclusionary trends in philosophy of maths*

The philosopher of mathematics, James Brown, has argued that mathematical objects exist in an atemporal realm. We gain knowledge of these objects through a special intuition. This unique knowledge is filtered through the conduit of an expert, a philosopher king or a really smart mathematician who can show us the way. Speaking from the perspective of Kantianism the philosopher of mathematics, Marcus Giaquinto, has claimed we necessarily come to “know” mathematical objects over time, because our brains are hardwired to grasp their special intuitive existence. Brown and Giaquinto’s arguments boil down to much the same thing: mathematical objects exist outside of human life; they can be discovered by humans, but not created by humans. Both Brown and Giaquinto view mathematics as a special domain of thinking (different from political, economic, religious or other social thinking). Both authors believe mathematics requires special people to do the thinking. Neither Brown’s Platonism nor Giaquinto’s neo-Kantianism explains why we “know” mathematical theorems or mathematical objects as we know them today. Neither account offers an explanation as to why we use the mathematical techniques we use. Neither account explains why we pose the mathematical questions that we pose. A better explanatory account of mathematical activity and mathematical knowing comes from Wittgenstein, who would argue what we know in mathematics and what we use in mathematics is based on what we are taught, what we learn, and what the social realm of possible extension of that knowledge to new case studies permits.