

TEACHING MATHEMATICS WITH A DIFFERENT PHILOSOPHY-I

FORMAL MATHEMATICS AS BIASED METAPHYSICS

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We report on a pedagogical experiment to make mathematics easy by changing its philosophy. The Western philosophy of math originated in religious beliefs about mathesis, cursed by the church. Later, mathematics was “reinterpreted”, in a theologically-correct way, using the myth of “Euclid” and his deductive proofs. The fact of the empirical proofs in the 'Elements', was, however, contrary to this myth. The discrepancy was resolved by Hilbert and Russell who rejected empirical proofs as unsound, reducing all mathematics to metaphysics. We explain why that formalist metaphysics is anti-utilitarian and culturally biased, not universal. Historically, most school-level math originated in the non-West with a practical epistemology, but was absorbed in the West after superimposing on it an incompatible Western metaphysics, still used to teach it. This has made mathematics needlessly complex. Accordingly, math can be made easy and more universal by reverting to a more practical epistemology.
