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Challenging Myths about Mathematics

In this talk I will question and challenge three ideas about mathematics: that mathematics is

1. a unique and unified subject,

2. absolute, universal and value-free,

3. an unqualified force for good.

Instead I claim there is no such thing as mathematics, as the term 'mathematics' does not refer to a single object.

I challenge the view that mathematics is absolute, universal and value-free, arguing that there are powerful and legitimate reasons for viewing mathematical knowledge, proofs and the objects of mathematics as human social constructions. From this perspective, it cannot be claimed that mathematics is ethics and values free.

Lastly I argue that mathematics does harm as well as good in shaping thought in an amoral or ethics-free way, it supports Instrumentalism and ethics-free governance (manifested in warfare, psychopathic corporations, human and environmental exploitation) and in sorting and labelling learners and citizens in modern society.

I conclude that to overcome such myths we need to teach the philosophy and especially the ethics of mathematics alongside mathematics itself.

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