The Indispensability Argument

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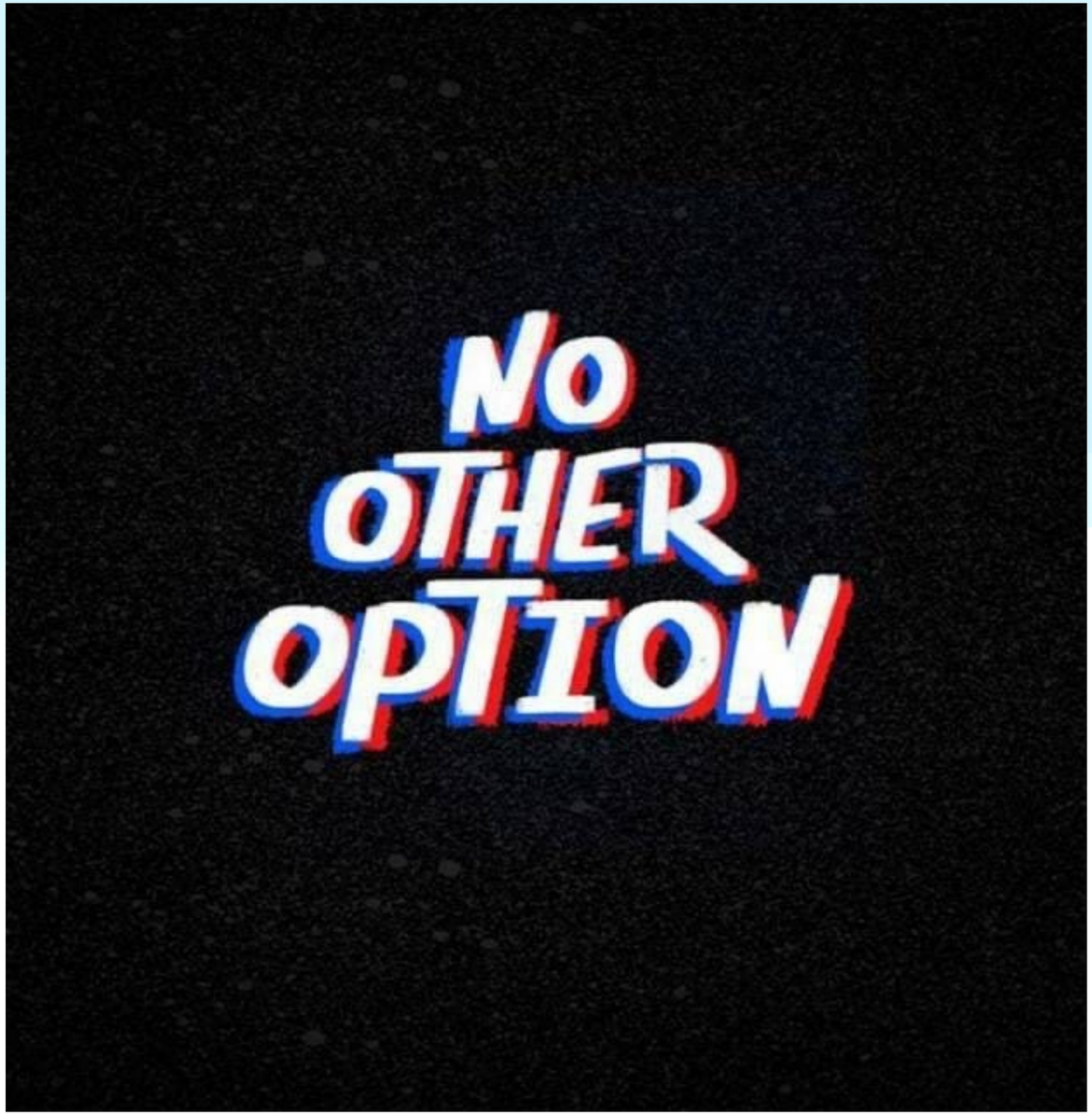
- (P1) We ought to have ontological commitment to all and only the entities that are indispensable to our best scientific theories.
- (P2) Mathematical entities are indispensable to our best scientific theories.
- (C) We ought to have ontological commitment to mathematical entities.



“Put up or shut up”

- Suppose P ⊃ Q. It follows that ¬Q ⊃ ¬P. Suppose you believe P. You cannot then consistently reject Q. Alternatively put, if you reject Q, you must also reject P.
- We can present the indispensability argument as resting on the claim that a) we must accept the implications of what we believe, and b) a belief in many mathematical truths entails the existence of mathematical objects. So, c) if you reject the existence of mathematical objects, you **must** deny obvious mathematical truths.
- Consider: (1) Distance travelled = Speed x Time. If you deny the existence of mathematical objects, you must deny (1).