“Socrates is Mortal” in Naproche

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Probably one of the most famous logical arguments is the following syllogism, mentioned the first time by John Stuart Mill in 1843 [2] in his *System of Logic* [1, Book II, Chapter 3]:

$$\frac{\begin{array}{c}\text{All humans are mortal.}\\ \text{Socrates is a human.}\end{array}}{\text{Therefore Socrates is mortal.}}$$

We can formalize this syllogism in Naproche without changing its wording:

Theorem 1 (Mill’s Syllogism). Socrates is mortal.

Proof. All humans are mortal. Socrates is a human. Therefore Socrates is mortal. ■

References

[1] John Stuart Mill. *A System of Logic, Ratiocinative and Inductive, Presenting a Connected View of the Principles of Evidence and the Methods of Scientific Investigation*. J. W. Parker, 1843.

[2] David A. Wheeler. “The Origin of All Men are Mortal”. 2023. URL: https://dwheeler.com/essays/all-men-are-mortal.html.

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