Metaphysics & Causes

Departure from Plato, questioning the account of substance and the four causes.

Logic & Biology

Contributions to the invention of formal logic and the pioneering study of living things.

Ethics & Politics

Inquiry into the picture of the good life, the nature of virtues, and the structure of the city.

Gemini Notebook

5.2

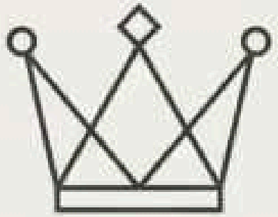


Stagira, Northern Greece.
Born to a physician at the Macedonian court.

Athens.
Arrives at Plato's Academy, remaining twenty years as student and then teacher.

Island of Lesbos.
Travels to study marine life.

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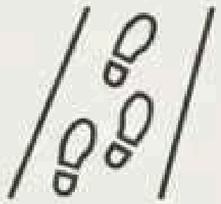


343 BCE

King Philip of Macedon requests him to tutor his teenage son Alexander (later the Great).

335 BCE

Returns to Athens and founds his own school, the Lyceum.



Peripatetic

From the Greek for walking about, as discussions took place while strolling.

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5.4

323 BCE

Alexander dies, anti-Macedonian feeling rises in Athens

322 BCE

Aristotle dies in Chalcis

Lost Works

His polished dialogues, highly praised in antiquity for their style.

Surviving Works

Dense, compressed lecture notes.

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5.5



Plato

Looking above for truth
(The Forms).



Aristotle

Looking within things
(The world around us).

While Plato points upward to seek truth separated from the world,
Aristotle holds his hand level above the ground to examine imnrdiate reality.

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SUBSTANCE = MATTER + FORM

Only **individual** things (e.g., this horse, this person) are fully real. Separated Forms cannot explain them.

MATTER
What it is made of.

FORM
What it is (its organized structure).

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5.7

The Bronze Statue

Matter = Bronze

Form = Shape of the figure

Neither exists apart from the other.

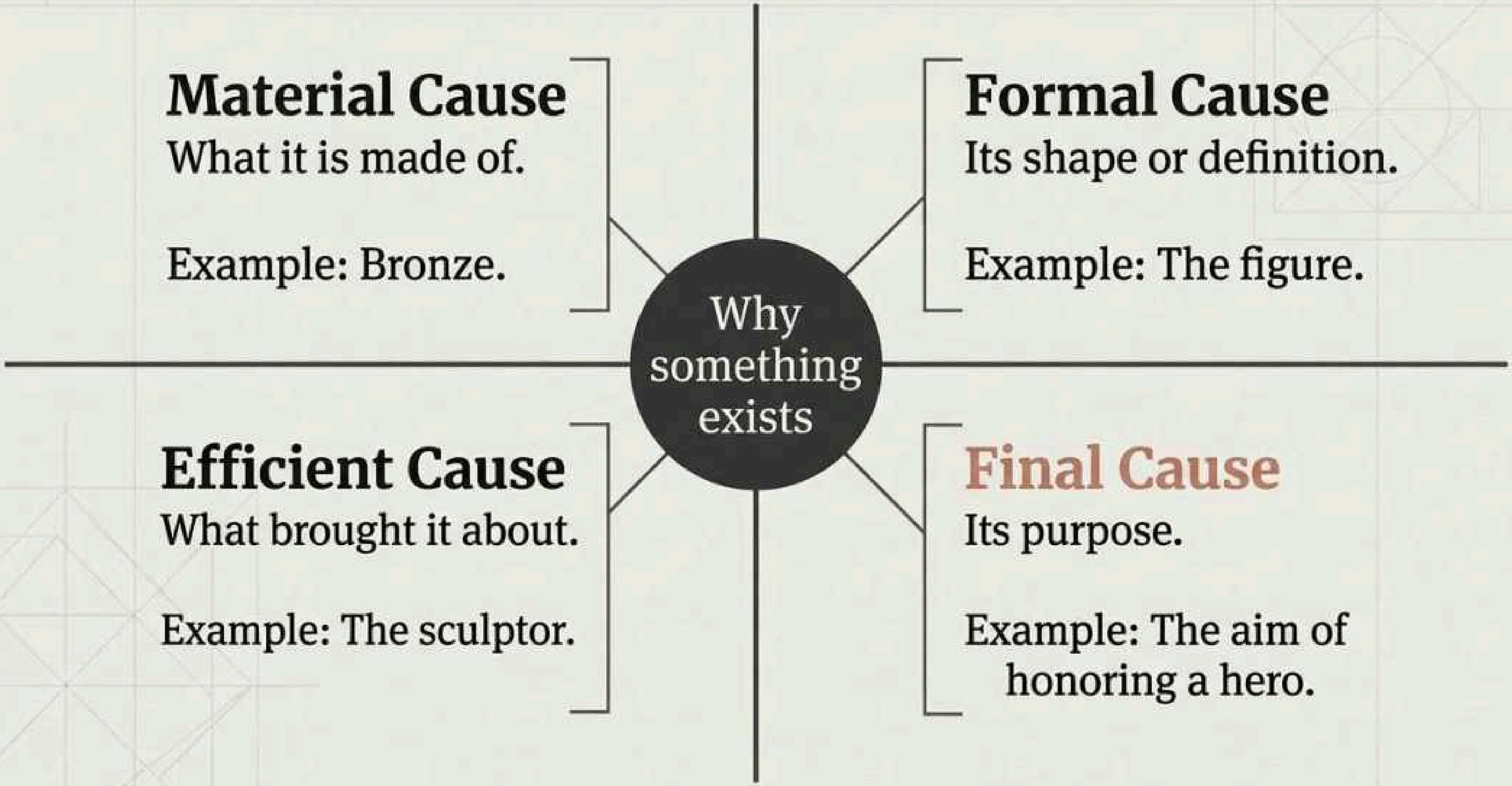
A Living Thing

Matter = Body

Form = Soul → Not a ghost inside, but the organization that lets it live, grow, and perceive.

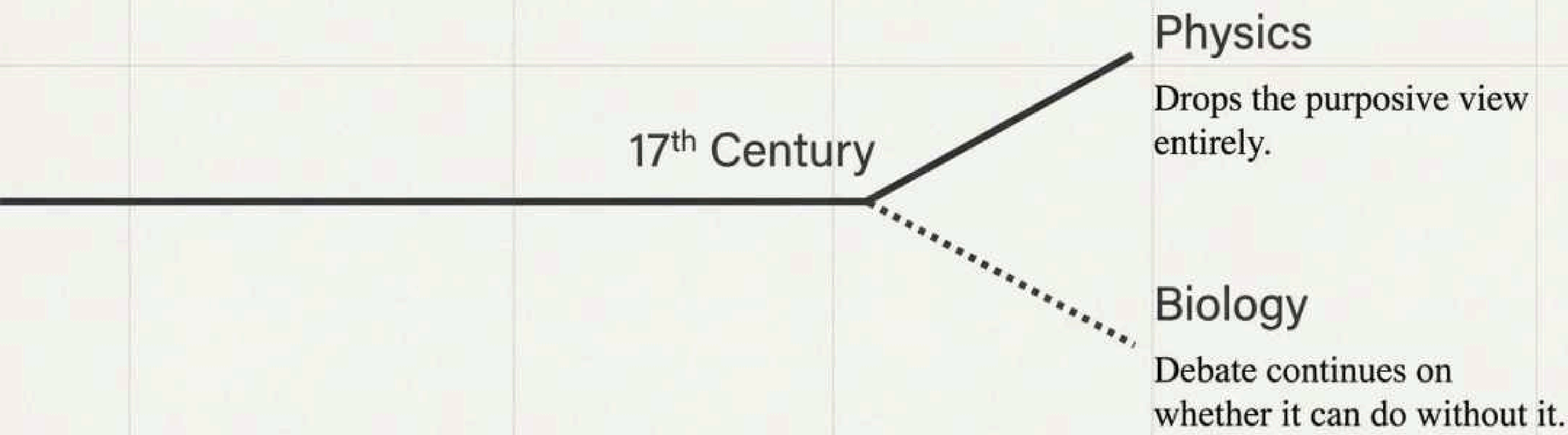
HYLOMORPHISM

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Gemini Notebook

5.9 Nature does nothing in vain. Each organ has a function (Teeth for chewing, acorns grow toward oaks).



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5.10

Premise 1
All humans are mortal.

Premise 2
All Greeks are humans.

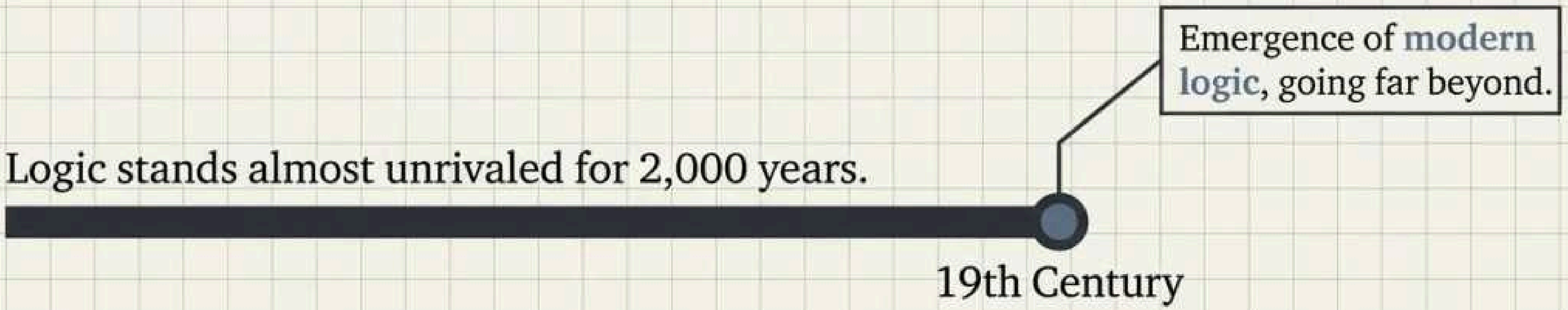


Using letters for terms to test **validity**, creating the first formal logic system.

Conclusion
So, all Greeks are mortal.

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> Logic has not been able to take a single step forward since Aristotle.
>
> — Immanuel Kant, 1787



But the syllogism remains the foundational model of careful reasoning.

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5.12

The Categories			
Substance	Quantity	Quality	Relation
Place	Time	and others	

Metaphysics

The Law of Non-Contradiction

The same thing cannot both be and not be in the same respect.

The firmest principle of all.

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5.13

Pioneering Observations

- Dissected animals, described hundreds of kinds.

- Correctly observed chick embryo development in the egg.

- Recognized dolphins and whales bring forth live young.

Errors

- Believed the heart (not the brain) is the seat of thought.

- Believed insects arise by spontaneous generation.

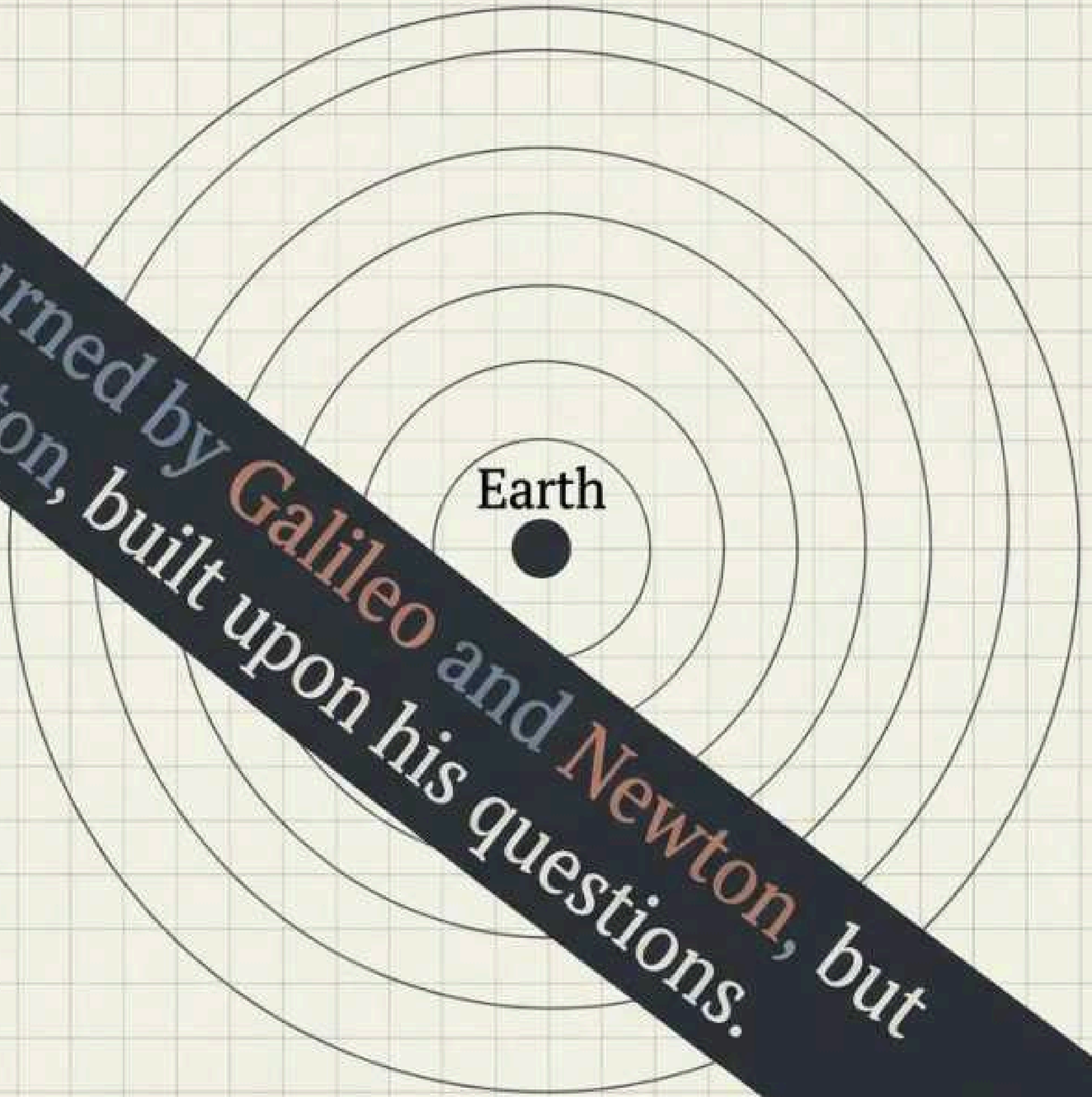
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5.14

- Heavier bodies fall faster (proportional to weight).

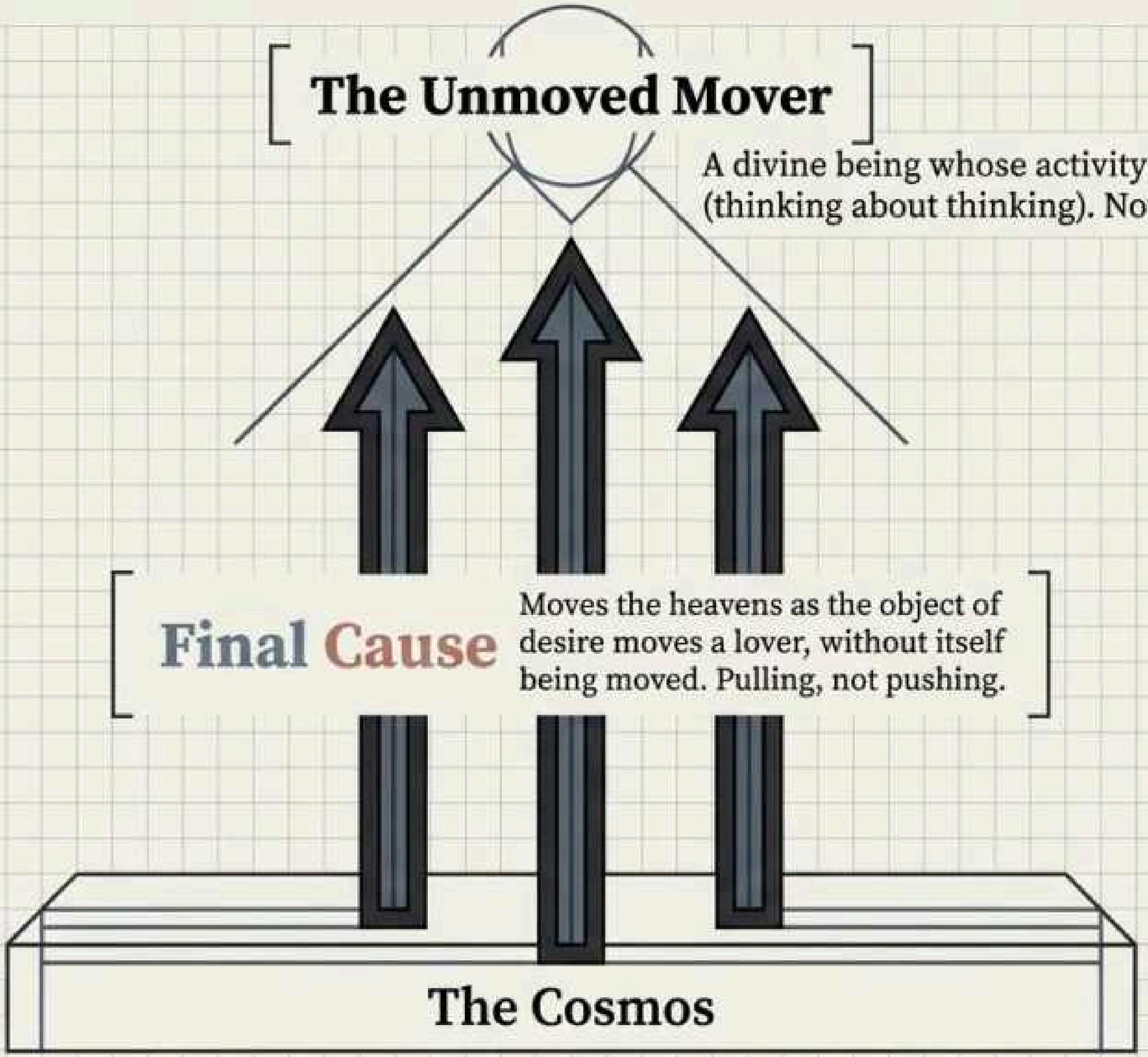
- A body in motion needs a continuing cause.

Overturned by Galileo and Newton, but Newton, built upon his questions.



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5.15



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5.16

The Highest Good

Eudaimonia

Translated as happiness or flourishing.
Not a feeling, but a way of living.

The Function Argument

The good of a thing lies in doing its characteristic work well.

The defining human work is **Reasoning.**

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5.17



Practice

(e.g., building, choosing well when it is hard)

Settled Disposition

(Virtues of character like courage and generosity are acquired, not inherent)

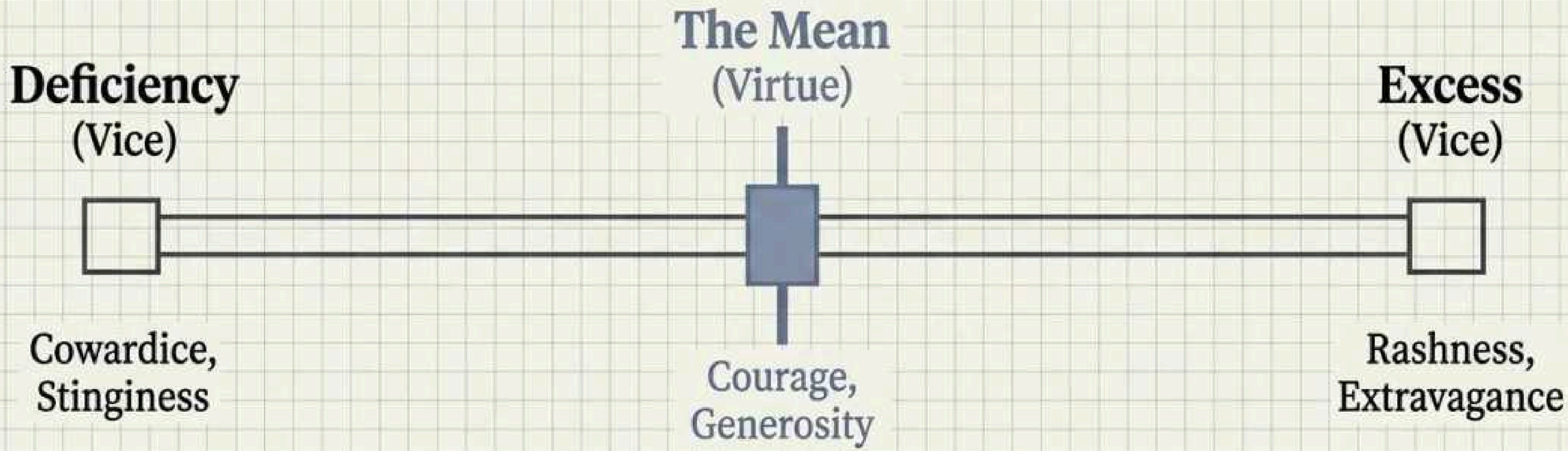
Virtue is choosing well, through habit.

Virtuous Action

(Activity of the soul over a complete life)

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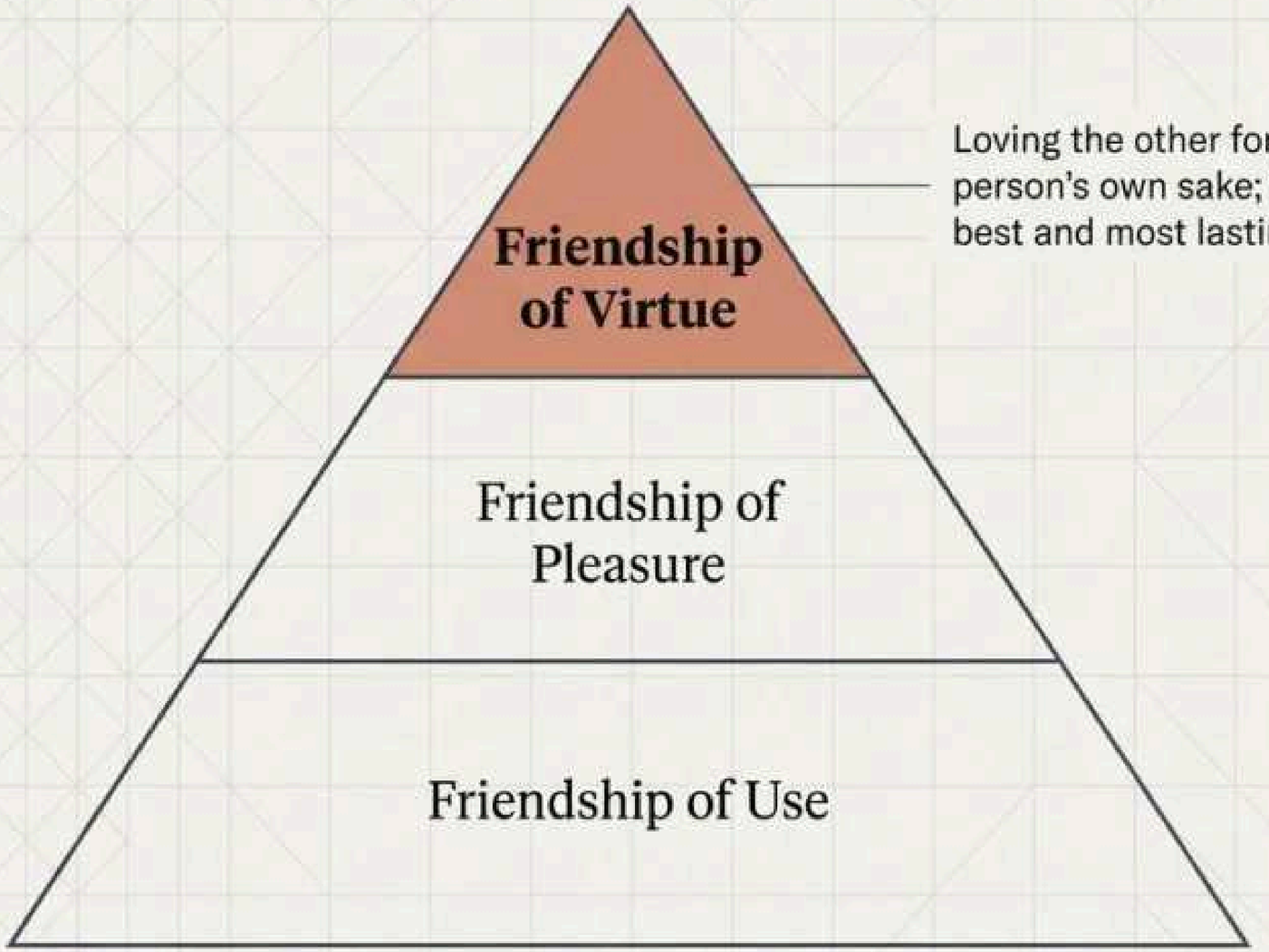
5.18



The mean is not a mathematical average but what is right for the person and occasion. Finding it requires Phronesis (practical wisdom / the skill of judging well in particular cases).

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5.19



Loving the other for the person's own sake; the best and most lasting.

Requirements of a Good Life

Needs some luck, some resources, and culminates in the highest activity—contemplation.

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5.20

Man is by nature a political animal. Only in a city can people fully live well.

	Rule by One	Rule by Few	Rule by Many
Good Forms (For the Common Good)	Monarchy	Aristocracy	Polity
Corrupt Forms (Serve only the rulers)	Tyranny	Oligarchy	Democracy

Favored Constitution: A mixed regime backed by a strong middle class.

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5.21

Prejudice & Errors

- Defended slavery, claiming some are natural slaves.

- Believed women were less capable of rule.

Honest study means seeing great thinkers whole, with their insight and their prejudice.

Insight & Legacy

- Ongoing relevance of his Poetics (tragedy and catharsis).

- The Rhetoric is still studied and read today.

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