BUT WHY DID ARISTOTLE NEED TO SAY THAT HE DID NOT WANT TO DEAL WITH IMAGINARY THINGS?

WAS HE TRYING TO SOLVE OR AVOID A PROBLEM?

YES.

For understanding the problem Aristotle was trying to avoid, let's look at what happens when you do logic with imaginary things. Let's discover the problem.

I type: Some apples are rotten

(1) find an apple
(2) Check for rot

∃ exists
↳ Belongs to class P

Similarly O-type → subject must be existent in both cases

What do we call the situation, where the a statement can only be true when its subject exists?

What do we call the situation, where, if a statement is true, it means that its subject term exists?

Existential import!

So, we will say that I-type and O-type statements have existential import.

reason is that both I & O type can be false

Traditional square of opposition runs into problems when we include imaginary things into logic.

Solution?

Solution 1: Totally do away with the traditional square of opposition. But that's idiotic. The problem is not the square of opposition. It works well when we are doing logic with existent things! The problem is not the square, but the imaginary things.

Solution 2: Totally do away with the imaginary things.

And that's the solution Aristotle went with.

Aristotle separated stuff of literature from the stuff that requires reasoning and logic. Stories can take a flight of imagination, create imaginary worlds, and decide the rules of the world. It is pointless to look for logic there.

Remember...

Aristotle rejected doing logic on non-existent things, but it his system can still be used for such things for doing thought experiments, and teaching/learning logic.

If a statement is true, its subject term exists in the world. A statement needs a real-world reference in order to be true.

↳ essential
↳ not sufficient, it should be in P

I & O type have existential import.

(Some type) ↳ (i) S exists, doesn't exist in P

★ Aristotelian Logic doesn't deal with fictional things

A type & E type → have existential imports, but we don't consider fictional stuff

(ii) because if we consider fictional stuff A & O type both can be false

(iii) thought experiments can't be done (could works "as if" Higgs-Boson exists, the LHC means that we even know how it may look) → we can't make propositions about null sets

⇒ ! (Sq of oppositions) happens

The problem is existential import, according to some others.

Possibility 2. Proposed by George Boole.
Hence called "Boolean interpretation"

Boole: A∧E → no existential import

⇒ A type & E type can be both true

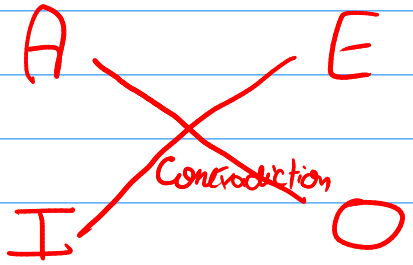
A & E ⇒ A type shall be vacuously true
E type

I & O can be both false

⇒ no subaltern

C I has existential import, but a doesn't
⇒ subaltern is WRONG acc to Boole

remain:



Modern/Boolean/Peano's
Square of opposition.

Modern/Boolean ⇒ existential fallacy avoid

Mistaken reasoning

Modern/Boolean interpretation relies on avoiding the existential fallacy.

Existential fallacy = Mistaken reasoning from presupposition that a class/set has members, even though that has not been explicitly implied.

In other words, it is the mistaken reasoning arising from the presupposition that all propositions have existential import.

E.g.: From the proposition, "All unicorn have three legs", concluding that "Some unicron has three legs" is existential fallacy.

It has not been explicitly stated that the class 'unicorn' has members. Therefore, the conclusion about some unicorns is wrong.

P.S. [A-type about unicorns will always be true, so O-type will always be false, and then you do not have to worry about finding a unicorn. Because a unicorn does not exist, you expect O-type to be false.]

Aristotle's system commits the fallacy, but says don't do implicay shit

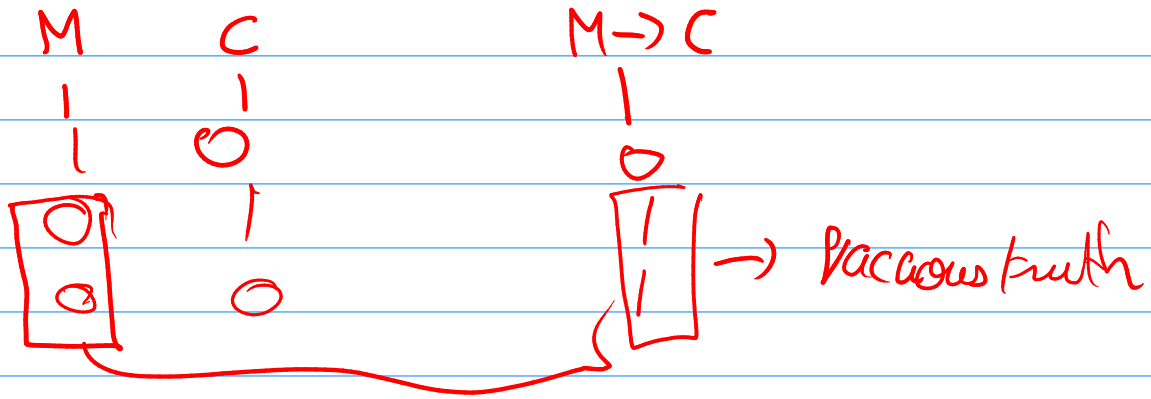
What's Vacuous truth

Empty statements are true:

Implication: relationship between 2 propositions
first one is antecedent
second one is consequent

if X then Y
if it rains, then we use an umbrella
If one ingests cyanide, one dies

Let's understand this with the truth table for implication:
if one is a murderer one is a criminal



All unicorns have wings (what do define a unicorn as though)

Paraphrased If unicorns are found to exist, then they shall be found to have wings
↳ This is an implication

Vacuous truth do not add any information/knowledge.

A is B A is not B both true

Then you have no info on A & B

But you rescued the square of opposition