

1. Leibniz's Law: Co-referring terms are intersubstitutable without causing a change in truth-value ✓
2. a posteriori: describes a statement that can be determined to be true or false only by sense experience. ✓
3. definite description: a descriptive phrase that picks out ✓
one and only one person or thing (or attempts to) (or phrases)
4. logical atomism: language and/or the world can be broken down into ultimate logical parts that can't be further reduced ✓
5. relation: a property that holds between two or more objects or an object and itself (e.g., being the sister of, loving) ✓
6. intensional context: a context in which co-referring terms may not be able to be substituted for one another; a context where Leibniz's Law does not hold. ✓

7/ There are two parts to the Tradition of Analytic Philosophy:

- (i) We should try to understand the meaning of language because many basic philosophical problems can be solved just by exploring the language used to ask and answer them.
- (ii) Language is an interesting philosophical topic in its own right, independently of what it can help us learn about the rest of philosophy.

8. Qualitative identity is the relation between two things that share all the same properties except their physical location in space. Possible examples are two shirts worn the same amount, bought at the same place, made in the same place,

in the same style, etc., and identical twins.

Numerical identity is a relation between an object and itself - that it shares the same location in space with itself. Examples would be Clark Kent / Superman and a shirt I wore yesterday and the same shirt that I am wearing today.

9. Frege / Russell

- take a dim view of natural language; they see it as being able to be illogical and ambiguous, and as containing non-referring terms
- wanted to stop using natural language for math and science, and to use an artificial language instead
- both created (tried to create) artificial language

early Wittgenstein

- is more positive towards natural language
- doesn't want to discard natural language for use in math and science
- thinks an artificial language could be useful...
- but thinks we need to study how natural language has meaning, otherwise any artificial language we create will have many of the same flaws that natural languages do

also: "the propositions of \mathcal{L} are logically, completely in order" just as they are -- at least in \mathcal{L}

Discuss Frege's Puzzle About Identity, his original (1879) solution, and his later (1892) solution.

There was a time when sailors used the phrase "the Morning Star" to refer to the first star to disappear in the morning at a certain time of year and the phrase "the Evening Star" to refer to the last star to come out in the evening at a certain time of year, without realizing that both stars were actually Venus. The discovery that their Morning Star and their Evening Star were both Venus was a major astronomical advance.

To say "the Morning Star = the Evening Star" seems to announce something important - to have cognitive significance. It is an *a posteriori* statement.

But to say "the Evening Star = the Evening Star" seems to announce something trivial. It is an *a priori* statement that anyone could see was true, even without any knowledge of astronomy.

Frege's puzzle asks: why? How can it be that " $a = a$ " differs in cognitive significance from " $a = b$ " given that a does equal b ?

In 1879, to answer this puzzle, Frege described two possible meanings for the statement "the Morning Star = the Evening Star". It could either describe a relationship between the object that "the Morning Star" picks out and the object that "the Evening

Star" picks out, or it could describe a relation between the actual words in the phrases themselves. To say that Venus (the object picked out by "Morning Star") is Venus (the object picked out by "Evening Star") is still an a priori statement with no cognitive significance. But to say that the phrase "the Morning Star" is identical in meaning to the phrase "the Evening Star" is not a priori. It has to be discovered and, according to early Frege, has cognitive significance (or, more a different cognitive significance than "ES = ES")

So, Frege said, the puzzle is solved by understanding that a statement like "the Morning Star = the Evening Star" describes a relation between the two expressions, not the object(s) they stand for. ✓

But words can be arbitrarily assigned to name objects. I can say "Rufus = the Morning Star" and "Venus = j j j j j" and these statements can't be distinguished in validity from "the Morning Star = the Evening Star = Venus". In 1892, Frege realized that his original solution was unsatisfactory.

If "the Morning Star = the Evening Star" simply means that you can say either phrase and still be talking about the same thing, it is meaningless, because you can arbitrarily put in ANY phrase and still be talking about the same thing. The real solution had to recognize that "the Morning Star = the Evening Star" deals not just with words, but with an important astronomical fact.

better:
"importance"
"significance"

better:
"trivial"
"of no importance"

Frege came up with the sense/reference distinction.

Reference is the object that the word or phrase denotes or picks out

not exactly...
the sense of an expression is given by a DD., but it's not the same thing as a DD.
(DD's are linguistic expressions, senses are not)

sense is ~~an expression~~ a definite description that a word or phrase expresses

* sense is public and non-mental; anyone can access it and it is not subjective ✓

* reference depends on sense; a reference works if it picks out something that matches the definite description expressed by the sense

↳ a bit unclear; better to say: what an expression refers to is determined by the sense it expresses

This can be applied to the puzzle of the Morning Star and the Evening Star by saying that their equality is significant when you are saying that their senses are identical not their references.

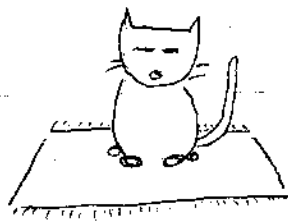
No "the difference between 'ES = MS' and 'ES = ES' is the way that each expresses the first part of a statement about the senses of 'ES' & 'MS'."

reference	phrase	reference	sense
	"the Morning Star"	Venus	the first star to disappear in the morning at a certain time of year
	"the Evening Star"	Venus	the last star to appear in the evening at a certain time of year

if the phrases' references were being said to be identical, you would be saying nothing more than "Venus = Venus". But if the phrases' senses are being said to be identical, you would be saying that "the first star to disappear in the morning at a certain time of year is the last star to appear in the evening at a certain time of year." This statement is a posteriori, holds great ~~cognitive~~ cognitive significance, and accurately expresses

the astronomical fact. Frege seems to have solved the puzzle.

Very good answer, despite a bit of
uncertainty & at least one
important misstep.



$-\frac{1}{2}$ pt out of 10 pt

95% for
this question