

## Frege: Two Kinds of Meaning

1. Gottlob Frege (1848-1925): mathematician, logician, and philosopher. He's one of the founders of *analytic philosophy*, which is the philosophical tradition dominant in English-speaking universities today.

“Uber Sinn und Bedeutung” (trans. “On Sense and Nominatum”) is a founding document of analytic philosophy.

2. Frege's Question:

The idea of Sameness challenges reflection. It raises questions which are not easily answered. Is Sameness a relation? A relation between objects? Or between names or signs of objects?

- (a) “The idea of Sameness”: numerical identity:

- (1) Stefani Germanotta = Lady Gaga.
- (2) SG and LG are *one and the same*.
- (3) If SG and LG are in a room, and no one else is, how many are in the room?

Not other kinds of sameness:

- (4) Your pen and mine are the same.
- (5) We're all the same *in here*. [gestures to heart]

- (b) “Is Sameness a relation?” A relation is a way in which things  $x$  and  $y$  may be related.

**EXAMPLES:**

- $x$  is exactly as tall as  $y$
- $x$  is shorter than  $y$
- $x$  is a student of  $y$
- $x$  has the same parents as  $y$

Some relations obtain only between two different things. [QUIZ: examples?]

Some relations obtain sometimes between two different things and sometimes between a thing and itself.[QUIZ: examples?]

Frege *assumes* that identity is a relation.

- (c) “A relation between objects? Or between names or signs of objects?”

**Object View:** identity is a relation between objects.

[LIKE: *is exactly as tall as*]

**Name View:** identity is a relation between names of objects.

[LIKE: *is spelled exactly the same way as*]

**FACT:** The name view is implausible: We seem to be talking about a person and not a name when we say (1).

**Two Models for the Name View:**

These are claims which don't *seem* to be about names, but secretly are.

**MODEL #1:** Quine's example:

(6) Giorgione is so-called because of his size.

**MODEL #2:** Made-up example:

I'll write '     >     ' when I mean to say that the name I put in the first blank is longer than the name I put in the second blank

For instance:

(7) The Queen City > Burlington

but

(8) NOT: Burlington > Burlington

[**QUIZ:** Can you say why?]

**FREGE'S QUESTION** : Is the Name View or the Object View correct?

3. **Against the Object View:**

(a) **Frege's Datum:**

The reasons that speak [against the Object View] are the following: " $a = a$ " and " $a = b$ " are sentences of obviously different cognitive significance: " $a = a$ " is valid *a priori* and according to Kant is to be called analytic, whereas sentences of the form " $a = b$ " often contain very valuable extensions of our knowledge and cannot always be justified in an *a priori* manner. The discovery that it is not a different and novel sun which rises every morning, but that it is the very same, certainly was one of the most consequential ones in astronomy.

Some astronomical vocabulary:

*Hesperus*: the brightest heavenly body visible in the evening.

*Phosphorus*: the brightest heavenly body visible in the morning.

Consider:

(9) Hesperus = Hesperus

(10) Hesperus = Phosphorus

A truth  $P$  is *a priori* iff  $P$  can be known independently of sense experience. (antonym: *a posteriori*)

**The English Translation:**  $P$  can be known *just by thinking*. We don't need to take surveys, conduct experiments, make observations, run computer models, *etc.*, to discover that  $P$  is true.

**DATUM #1** (9) is *a priori*; (10) is not.

[QUIZ: Other Examples?]

A true sentence  $P$  is *analytic* (in Kant’s terminology) iff  $P$  is true in virtue of meaning. (antonym: *synthetic*)

**The English Translation:**  $P$  can be known *just by knowing the language*. We only need to understand  $P$  to know whether it’s true. (Sometimes this is what we mean when we say that a sentence is “*true by definition*”)

**DATUM #2** (9) is *analytic*; (10) is not.

[QUIZ: Other Examples?]

**FREGE’S DATUM** (9) and (10) have different *cognitive significance*.

**The English Translation:** (9) and (10) convey different information.

**NOTE:** DATUM #1 and DATUM #2 are *symptoms* of the difference of cognitive significance.

- Difference of cognitive significance, even though both claims are *a priori*:

(11)  $27 * 152 = 27 * 152$

(12)  $27 * 152 = 4,104$

- Difference of cognitive significance, even though both claims are *a posteriori*:

(13) My neighbor = Stefani Germanotta

(14) My neighbor = Lady Gaga

(b) **Frege’s Second Premise:**

If we wished to view identity as a relation between the objects designated by the names ‘ $a$ ’ and ‘ $b$ ’ then “ $a = a$ ” and “ $a = b$ ” would not seem different if “ $a = b$ ” is true.

[QUIZ: What is Frege saying here?]

**THE IDEA:** If what

[TERM#1]      $R$      [TERM#2]

says is just that  $R$  holds between the *objects* designated by TERM#1 and TERM#2, then, if the *object* designated by ‘ $a$ ’ is also the *object* designated by ‘ $b$ ’, then

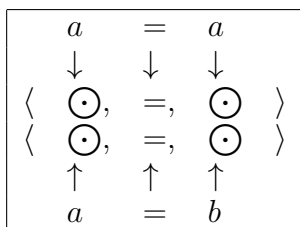
(15)  $aRa$

and

(16)  $aRb$

say the same thing.

[BLACKBOARD]:



**SLOGAN:** “The relation is the same and the objects are the same, so what is said is the same.”

(c) **Frege’s Argument:**

- i. **FREGE’S DATUM:** (9) and (10) have different cognitive significance.
- ii. If the Object View were true, (9) and (10) would have the same cognitive significance.

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iii. The Object View is not true.

(d) **Frege’s Puzzle:**

**FREGE’S PUZZLE** How can (9) and (10) convey different information, given that they *appear to report exactly the same fact*?

**NOTE:** Frege’s Puzzle is more general than identity:

- Other relations:

- (17) Hesperus is the same size as Phosphorus
- (18) Hesperus is the same size as Hesperus

(17) and (18) convey different information.

- Non-relational claims:

- (19) That woman is walking on the Mall.
- (20) Gwyneth Paltrow is walking on the Mall.

(19) and (20) convey different information.

(e) **The Name View:**

What one wishes to express with ‘ $a = b$ ’ seems to be that the signs or names ‘ $a$ ’ and ‘ $b$ ’ designate the same thing; and in that case we would be dealing with those signs: a relation between them would be asserted.

**NAME VIEW ANALYSIS** A sentence of the form ‘ $a = b$ ’ reports the fact that there is one thing to which both ‘ $a$ ’ and ‘ $b$ ’ refer.

(f) **In Favor of the Name View:**

		The Right Answer	The Name View's Answer
<b>TRUE</b>	Is (9) true?	Yes	Yes
	Is (10) true?	Yes	Yes
<b>A PRIORI</b>	Is (9) <i>a priori</i> ?	Yes	Yes
	Is (10) <i>a priori</i>	No	No
<b>ANALYTIC</b>	Is (9) analytic?	Yes	Yes
	Is (10) analytic?	No	No
<b>INFORMATIVE</b>	Is (9) informative?	No	No
	Is (10) informative?	Yes	Yes

**SLOGAN:** The name view:

- right on truth,
- right on *a priori*,
- right on analyticity,
- right on cognitive significance.

(g) **Against the Name View I:** *The name view threatens to generalize!*

If this is the right view about (9) and (10), why isn't something similar justified for (17) - (20)?

**INTOLERABLE CONCLUSION:** Every property/relation is a property of/relation between names.

(h) **Against the Name View II:** *The Subject Matter Objection:*

This connection, however, is arbitrary. You cannot forbid the use of an arbitrarily produced process or object as a sign for something else. Hence, a sentence like ' $a = b$ ' would no longer refer to a matter of fact but rather to our manner of designation; no genuine knowledge would be expressed by it. But this is just what we want to express in many cases.

**Translation Notes:**

- 'arbitrary' translates 'willkürlich': literally, "willful", dependent on human decision.
- Frege distinguishes between a *matter of fact* and *our manner of designation*. Both are factual. Frege seems to have in mind the idea that facts are *independent of us*.

**The English Translation:**

Whether 'Hesperus' and 'Phosphorus' are co-referential is, in part, a fact concerning human decisions: it's a fact of human culture. But the fact that Hesperus is Phosphorus is *purely astronomical*. So, the name view gets the subject matter wrong.

**The Subject Matter Argument:**

- That 'Hesperus' and 'Phosphorus' are co-referential is, in part, a fact of human culture.
- That Hesperus = Phosphorus is not a fact of human culture.
- If the name view is true, then it is a fact of human culture that Hesperus = Phosphorus.

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iv. The name view is not true.

(i) **Why Believe 3(h)ii of the Subject Matter Argument?**

**THE IDEA:** The fact that Hesperus is Phosphorus is quite independent of us. It would obtain even if there had never been any human beings.

**NOTICE:** If there had never been any human beings, then the words ‘Hesperus’ and ‘Phosphorus’ would not have existed or referred to anything. Their being co-referential is dependent on what we have done.

(j) **Frege’s Answer:** So, both views stink. What, then, is the right analysis of (9) and (10)?

*Frege never says!* Instead, he sets about answering Frege’s Puzzle.

(k) **Frege’s Answer to Frege’s Puzzle:**

If the sign ‘a’ differs from the sign ‘b’ only as an object (here by its shape) but not by its rôle as a sign, that is to say, not in the manner in which it designates anything, then the cognitive significance of ‘ $a = a$ ’ would be essentially the same as that of ‘ $a = b$ ’, if ‘ $a = b$ ’ is true. A difference could arise only if the difference of signs corresponds to a difference in the way in which the designated objects are given.

Different signs “give” the same object in different ways:

- **F’s ex.:** ‘the intersection of  $a$  and  $b$ ’    ‘the intersection of  $b$  and  $c$ ’
- **another ex.:** ‘the instructor of PHIL 2470’    ‘the reggae singer at Nectar last night’

**THE IDEA:** these signs refer to *the same object* via *different features* of that object.

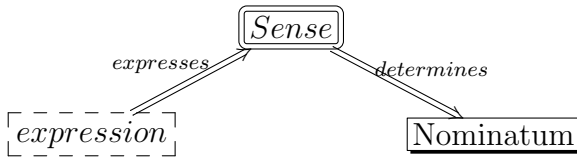
(l) **Frege: Two Kinds of Meaning:**

The model above generalizes:

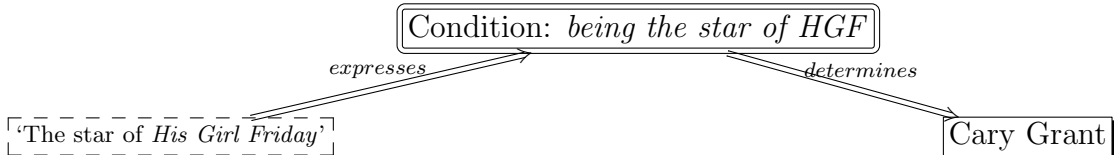
Now it is plausible to connect with a sign (name, word combination, expression) not only the designated object, which may be called the *nominatum* of the sign, but also the *sense* (connotation, meaning) of the sign in which is contained the manner and context of presentation.

**Frege’s Solution to Frege’s Puzzle:** co-referential names can have different cognitive significance in virtue of expressing different senses. **Sense** explains **information value**; **Nominatum** explains **subject matter** (and truth).

**The Fregean Triangle:**



For instance:



- The expression is **an artifact**.
- The sense is **not an artifact**.
- The nominatum is **rarely an artifact**.

- Which sense  $e$  expresses is ‘arbitrary’
- Which object (if any) a sense determines is **not arbitrary**.

**Sense ‘contains a MOP’** (my interpretation): The sense contains a **condition** which “presents” the nominatum by **singling it out**.

**Condition ‘singles out’ an individual**: A condition **singles out** an individual just in case that individual, and no other, meets the condition.

**The Best Case**: Expressions of the form “the \_\_\_\_\_” (paradigmatic examples of *definite descriptions*).

#### 4. *Four Roles for Sense*

I. Senses are the **linguistic meanings** of expressions of a language.

Now it is plausible to connect with a sign (name, word combination, expression) not only the designated object, which may be called the nominatum of the sign, but also the sense (connotation, meaning) of the sign in which is contained the manner and context of presentation.

The sense of a proper name is grasped by everyone who knows that language or the totality of designation of which the proper name is a part.

The regular connection between a sign, its sense and its nominatum is such that there corresponds a definite sense to the sign . . .

II. Senses **determine nominata/truth-values**.

The regular connection between a sign, its sense and its nominatum is such that there corresponds a definite sense to the sign and to this sense there corresponds again a definite nominatum.

III. Senses **determine cognitive significance**.

A difference [in cognitive significance] could arise only if the difference of the signs corresponds to the difference in the way in which the designated objects are given.

IV. Senses are **the way in which objects are picked out**.

Now it is plausible to connect with a sign (name, word combination, expression) not only the designated object, which may be called the nominatum of the sign, but also the sense (connotation, meaning) of the sign in which is contained the manner and context of presentation.

#### 5. *Direct Discourse Reports*:

When words are used in the customary manner then what is talked about are their nominata. But it may happen that one wishes to speak about the words themselves or their senses. The first case occurs when one quotes one's own words in direct (ordinary) discourse.

- (21) Jack is honest.  
 (22) Avi said, "Jack is honest."

A bad inference:

- (a) Avi said, "Jack is honest."  
 (b) Jack = the lying SOB who stole Avi's car.  
 \_\_\_\_\_  
 (c) Avi said, "the lying SOB who stole Avi's car is honest."

Frege's diagnosis: We're not talking about *the man* Jack. We're talking about *the word* 'Jack'.

In this case one's own words immediately name (denote) the words of the other person and only the latter words have the usual nominata. We thus have signs of signs. In writing we make use of quotes enclosing the word-icons. A word-icon in quotes must therefore not be taken in the customary manner.

[QUIZ: Differences?]

Distinguish:

	use of a word	mention of a word
<b>Characterization:</b>	subject matter is the word's referent	subject matter is the word itself
<b>for ex.:</b>	<b>using</b> 'Jack' to talk about Jack	<b>mentioning</b> the word 'Jack' to talk about the word

Frege's view:

	customary occurrence	occurrence in quotes
<b>Expression:</b>	'Jack' (as in (21))	'Jack' (as in (22))
<b>Nominatum:</b>	a car thief: <span style="border: 1px solid black; padding: 2px;">Jack</span>	a word: 'Jack'
<b>Sense:</b>	???	???

## 6. *Indirect Discourse Reports:*

In indirect (oblique) discourse we speak of the sense, e.g., of the words of someone else. From this it becomes clear that also in indirect discourse words do not have their customary nominata; they here name what customarily would be their sense.



(23) Avi said that Jack is honest.

[I]n indirect discourse words do not have their customary nominata; they here name what customarily would be their sense. In order to formulate this succinctly we shall say: words in indirect discourse are used *indirectly*, or have *indirect* nominata. Thus we distinguish the *customary* from the *indirect* nominatum of a word; and similarly, its *customary* sense from its *indirect* sense. The indirect nominatum of a word is thus its customary sense.

A bad inference:

(a) Avi said that Jack is honest.

(b) Jack = the lying SOB who stole Avi’s car.

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(c) Avi said that the lying SOB who stole Avi’s car is honest.

Also:

(24) Hammurabi believed that Hesperus shone in the evening  
[TRUE]

(25) Hammurabi believed that Phosphorus shone in the evening  
[FALSE]

**NOTE:** This is sometimes (confusingly) also called “Frege’s Puzzle”.

**FREGE’S BELIEF PUZZLE** How can (24) and (25) differ in truth value, given that they *appear to report exactly the same fact*?

Distinguish:

	customary use	indirect use
<b>Characterization:</b>	subject matter is the word’s referent	subject matter is the word’s customary sense
<b>for ex.:</b>	<b>direct use</b> of ‘Jack’ to talk about Jack	<b>indirect use</b> of ‘Jack’ to talk about what someone says or thinks

Frege’s view:

	customary occurrence	indirect occurrence
<b>Expression:</b>	‘Jack’ (as in (21))	‘Jack’ (as in (23))
<b>Nominatum:</b>	a car thief: <span style="border: 1px solid black; padding: 2px;">Jack</span>	the customary sense of ‘Jack’
<b>Sense:</b>	the customary sense of ‘Jack’	???

**Frege’s Solution to Frege’s Belief Puzzle:** (24) and (25) do not report exactly the same fact. (24) reports a fact involving the (customary) sense of ‘Hesperus’; (25) does not.

***A Problem for Frege's Solution:*** back-reference:

(26) Avi believes that Jack is honest, but he's not.

**Objection:**

- (a) The pronoun in (26) refers to the same thing as its antecedent 'Jack'.
  - (b) If Frege's theory of indirect discourse is true, then the occurrence of 'Jack' in (26) refers to a sense.
  - (c) The pronoun in (26) does not refer to a sense.
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- (d) Frege's theory of indirect discourse is not true.