

## Kripke: “Naming and Necessity”

### A RETURN TO MILL

Kripke proposes a Millian theory of names, according to which proper names don't have senses. He claims there is an inherent problem in the Fregean notion of sense.

### A CONFLATION IN FREGE'S NOTION OF SENSE

Kripke's response to Fregean theories: we must distinguish sharply between two things that Fregean theories tend to conflate. In a part of Lecture I not reprinted in Martinich, he says:

“Frege should be criticized for using the term ‘sense’ in two senses. For he takes the sense of a designator to be its meaning; and he also takes it to be the way its reference is determined. Identifying the two, he supposes that both are given by definite descriptions” (*Naming and Necessity*, p. 59).

On p. 291, Kripke explicitly draws the distinction between *giving the meaning* (=semantic content) and *determining the reference*.

#### Giving the semantic content

This is one facet of a Fregean sense. A sense is supposed to be that which is grasped by the mind, a “meaning” in some non-technical sense. This way of looking at the description (or cluster of descriptions) associated with a name is to say that the description (or cluster) gives what Mill would call the *connotation* of the name.

On this view, a name like ‘Aristotle’, while it refers to Aristotle, means (has as its semantic content) ‘the tutor of Alexander the Great’, or ‘the most famous pupil of Plato’, or ‘the author of the *Nicomachean Ethics*’, or ‘the person who has all or most of the following properties ...’.

#### Fixing the reference

This is another facet of a Fregean sense, but it is weaker than meaning. Here the point is that the description is that which picks out the thing that the name is being used to refer to. On this view, a description (such as ‘the most famous pupil of Plato’) simply picks out the person to whom the name ‘Aristotle’ is being applied. This facet of sense does **not** require that the name ‘Aristotle’ **means** ‘the most famous pupil of Plato’. It is a **route** to a referent (denotation), but not a synonymy.

Kripke's idea is that we can, and should, separate these two facets. Why?

## Why fix the reference without giving the semantic content?

If the Fregean view of names were correct, some claims that seem to be contingent would turn out to state necessary truths, and would be knowable *a priori*.

Example:

(1) Aristotle was a student of Plato.

is a contingent truth. But if 'Aristotle' simply **means** 'the most famous student of Plato', then (1) is synonymous with:

(2) The most famous student of Plato was a student of Plato.

But (2) is a necessary truth, and can be known *a priori* to be true. Given that Plato was a teacher, we don't have to conduct an empirical study to determine whether Plato taught Plato's students. But anything synonymous with a necessary truth is itself a necessary truth. So, (2) is necessary, so is (1).

But if a name's associated description(s) only fix the reference, but don't provide the semantic content, of a name, we will be able to resist this unpalatable conclusion. For if 'Aristotle' and 'the most famous pupil of Plato' don't have the same meaning, then (1) and (2) are not synonymous, and may well express different propositions

(2) may be necessary, but (1) is contingent.

## A PRIORITY VS. NECESSITY

Kripke also sharply distinguishes between two notions that are often run together.

### *A Priori*

This is an **epistemological** concept: what we can know **independent of experience** (vs. *a posteriori*, what can be known only empirically, through experience.)

### **Necessary**

This is a **metaphysical** concept: what is **true in every possible world** (vs. contingent: what could have been otherwise, true in some, but not all, possible worlds.)

It has been a commonplace in philosophy to think these two notions coincide, even if they are not synonymous. That is, it is a commonplace to think that if it can be known *a*

*priori* that  $p$ , then it is necessary that  $p$ , and that if it is necessary that  $p$ , then it can be known *a priori* that  $p$ .

**The traditional picture looks like this:**

Necessary <i>a priori</i>	Necessary <i>a posteriori</i>
Contingent <i>a priori</i>	Contingent <i>a posteriori</i>

where the **two shaded boxes are empty**.

Against this, Kripke argues that there can be **necessary *a posteriori*** truths, and that there can be **contingent *a priori*** truths. Examples:

### **Necessary *a posteriori***

Goldbach's conjecture: every even number greater than 2 is the sum of two primes.

Fermat's theorem: ' $x^k + y^k = z^k$ ' has no solution in the domain of integers for any  $k$  greater than 2.

[To these, Kripke will add, in lecture III (not reprinted in Martinich), the following examples:

'Gold has atomic number 79'

'Water = H<sub>2</sub>O'

'This table is made of wood'.

Kripke's position is that **every** identity statement whose terms are **proper names** is a necessary truth if it is true at all, even though most such statements are known empirically, *a posteriori*.]

### **Contingent *a priori* (examples omitted in our excerpts)**

'The standard meter stick is one meter long' (*Naming and Necessity*, p. 54).

'Water boils at 100° C' (*Naming and Necessity*, p. 56).

These claims may seem bizarre. To understand them, we must get clear on Kripke's concept of a **rigid designator**.

## THESIS: NAMES ARE RIGID DESIGNATORS

Kripke calls both names and descriptions ‘designators’. And he makes clear (p. 290) that he is considering descriptions as used **attributively** (as Donnellan would put it). A **rigid designator**, he tells us, designates the same object in every possible world. A **nonrigid designator** designates different objects in different possible worlds.

### Possible worlds

A possible world is simply a way things might have been. It is **not** something that can be seen through a telescope or visited on a space ship. The terminology, Kripke admits, is misleading. It might better be called *a possible state of the world* or a *way things might have been* or a *counterfactual situation*.

Kripke makes this clear in the preface to the monograph version of *Naming and Necessity*, p. 15:

I will say something briefly about ‘possible worlds’. ... In the present monograph I argued against those misuses of the concept that regard possible worlds as something like distant planets, like our own surroundings but somehow existing in a different dimension, or that lead to spurious problems of ‘transworld identification’. Further, if one wishes to avoid the *Weltangst* and philosophical confusions that many philosophers have associated with the ‘worlds’ terminology, I recommended that ‘possible state (or history) of the world’, or ‘counterfactual situation’ might be better. One should even remind oneself that the ‘worlds’ terminology can often be replaced by modal talk—‘It is possible that ...’

### Rigid designators

‘The inventor of bifocals’ is a **nonrigid** designator. In the actual world, it designates Benjamin Franklin. But, things might have gone differently, and Franklin might not have invented bifocals. They might have been invented by someone else. In this case, the description ‘the inventor of bifocals’ would designate someone other than Franklin. (Of course, the description would still have exactly the same **meaning** — it would just designate a different person.)

But ‘Benjamin Franklin’ is (according to Kripke) a rigid designator. There is no way things might have gone according to which Franklin would not have been Franklin. He might have been a very different sort of person, but he wouldn’t have been someone else.

Kripke introduces two important caveats (see p. 296) that tend to make the notion of a rigid designator a little more complicated:

1. The object denoted by a rigid designator does not have to **exist** in every possible world. (It does not have to be a necessary object.) Benjamin Franklin might never have existed, but still the name ‘Benjamin Franklin’ is a rigid designator; it designates the same object in every possible world. (There are some possible worlds — ones in which Franklin does not exist — in which the name ‘Benjamin Franklin’ simply does not designate anything that exists in that world.)
2. The claim that a designator is rigid does **not** mean that we can’t imagine a possible world in which that designator is used differently from the way it’s actually used. We can imagine a world in which a different set of parents named a different person ‘Benjamin Franklin’. But that would **not** be a world in which someone **else** was (as **we** use the name) Benjamin Franklin.

As Kripke stresses, it’s the way *we* use the designator in question that determines which object, in a possible world, it designates. The way *we* use the expression ‘the inventor of bifocals’ (attributively) it designates, with respect to a given possible world, whoever invented bifocals in that world. So in the actual world, it designates Franklin. In another possible world, it designates Spinoza. In yet another possible world, it designates no one. (Imagine a possible world in which there were no bifocals, or in which they were found growing on trees.)

It is certainly possible that Benjamin Franklin might have had a different name. Suppose his parents had decided to name him ‘Richard’; and suppose that there was also at the same time a potato farmer in Maine named ‘Benjamin Franklin’. In this situation, the name ‘Benjamin Franklin’ designates a potato farmer in Maine. So isn’t this a counterfactual situation in which Benjamin Franklin was a potato farmer in Maine, and not a statesman living in Philadelphia?

No. This response misunderstands Kripke’s idea. It is not at issue how people, in the counterfactual situation we are imagining, used the name ‘Benjamin Franklin’. **We** use the name ‘Benjamin Franklin’ to pick out the object we are placing in a counterfactual situation, and then attempt to answer questions about that object. Hence, with respect to the possible world under discussion, we would evaluate these propositions as follows:

1. Benjamin Franklin is named ‘Benjamin Franklin’. **F**
2. Benjamin Franklin is named ‘Richard Franklin’. **T**
3. Benjamin Franklin is a potato farmer in Maine. **F**
4. A man named ‘Benjamin Franklin’ is a potato farmer in Maine. **T**

## AN AMBIGUITY IN ‘RIGID DESIGNATOR’?

Kripke seems to use the term ‘rigid designator’ ambiguously. Compare his formulation on p. 293, right, middle, with the one on p. 293, right, bottom. This gives us two possible definitions:

1.  $\alpha$  is rigid<sub>1</sub> iff  $\alpha$  designates the same object in every possible world.
2.  $\alpha$  is rigid<sub>2</sub> iff  $\alpha$  designates the same object in every possible world in which that object exists.

One might consider a third possibility as giving the idea that Kripke is getting at (cf. Putnam, p. 311):

3.  $\alpha$  is rigid<sub>3</sub> iff  $\alpha$  designates the same object in every possible world in which  $\alpha$  designates anything at all.

A denoting phrase may be rigid in one of these senses but not in another. Consider a denoting phrase constructed out of a proper name and a description, e.g., ‘the politician Nixon’. This is to be understood to mean:  $(\exists x)(x \text{ is a politician} \wedge x = \text{Nixon})$ .

This is obviously not rigid<sub>1</sub>, since there are worlds in which it does not denote anything at all.

And it is not rigid<sub>2</sub>, since it does not designate Nixon in worlds in which Nixon exists but is not political. (Imagine a world in which Nixon became a druggist and never went into politics at all.)

But it is rigid<sub>3</sub>, since it designates Nixon in any world in which it designates anything. (It designates Nixon in the worlds in which Nixon is a politician, and has no designation in worlds in which Nixon is not a politician.)

Here’s a “rigidity chart”; see whether your results match mine.

Designator	rigid <sub>1</sub>	rigid <sub>2</sub>	rigid <sub>3</sub>
‘The inventor of bifocals’	No	No	No
‘Richard Milhous Nixon’	No*	Yes	Yes
‘17’	Yes	Yes	Yes
‘The politician Richard Milhous Nixon’	No	No	Yes
‘The positive square root of 16’	Yes	Yes	Yes

\* The reason for the ‘No’ here is that there are worlds in which Nixon does not exist, and one might well assume that  $x$  must exist in  $W$  in order for a designator  $\alpha$  to designate  $x$  in  $W$ .

But it is likely that Kripke did not assume this. For he seems to have thought that a designator could designate an object even with respect to a world in which that object doesn’t exist. Consider, for example, the claim “If Hitler had not existed, WWII would never have occurred.” Here we are using the name ‘Hitler’ to designate the fanatical Fascist leader, and evaluating a claim about him with respect to a world in which he does not exist. It would seem that in order for us to make sense of such counterfactuals (‘if  $n$  had not existed ...’, where  $n$  is a name) we have to allow names to designate an object with respect to a world in which that object does not exist.

So this ambiguity in ‘rigid designator’ may not affect Kripke’s claim about names, for it seems plausible to maintain that proper names are rigid in all three senses, so long as we allow a designator to designate an object with respect to a world in which that object does not exist. Given this understanding, Kripke probably intended rigid<sub>1</sub> to be the sense he intended.

Finally, it seems pretty clear that Kripke did not intend every designator that is rigid<sub>3</sub> to count as a rigid designator. For a rigid designator should follow its designatum into every possible world in which that object exists. That is, to rigidly designate Nixon, a designator should designate him in every counterfactual situation. But ‘the politician Nixon’ does not designate Nixon in a world in which Nixon exists but never goes into politics.

Soames (*Beyond Rigidity*) calls such designators *partially descriptive names*, and claims that they are not rigid designators. His examples include: *Princeton University*, *Professor Saul Kripke*, *Justice Antonin Scalia*, *Miss Ruth Barcan*, *New York City*, *Mount Rainier*, *Puget Sound*, *Whidbey Island*, *The Empire State Building*, *Yankee Stadium*, etc.

## THE CLUSTER THEORY

Kripke couches his critique as being against what he calls the “cluster theory.” It consists of the following theses:

1. To every name or designator ‘X’, there corresponds a cluster of properties ...  $\phi$  such that A believes ‘ $\phi$  X’.
2. One of the properties, or some conjointly, are believed by A to pick out some individual uniquely.
3. If most, or a weighted most, of the  $\phi$ ’s are satisfied by one unique object  $y$ , then  $y$  is the referent of ‘X’.
4. If the vote yields no unique object, ‘X’ does not refer.
5. The statement, ‘If X exists, then X has most of the  $\phi$ ’s’ is known *a priori* by the speaker.
6. The statement, ‘If X exists, then X has most of the  $\phi$ ’s’ expresses a necessary truth.

But notice that Kripke’s objections apply to any theory that tries to account for the meaning of proper names in terms of descriptions. Thus, it is directed against Frege (where a description provides the sense of a name) and Russell (where most names are thought of as abbreviated descriptions) as well as a theory that tries to account for the meaning of a name in terms of clusters of descriptions. So it is really a critique of **descriptivism** — any theory that attempts to provide a **semantic content for names by means of descriptions**.

## CRITIQUE OF DESCRIPTIVISM

### Classifying Kripke’s Arguments

Following Soames (*Beyond Rigidity*), we can distinguish between Kripke’s semantic, epistemic, and modal arguments against descriptivism. Suppose that  $n$  is a name and *the D* is a description (or cluster thereof) that is supposed to give the semantic content of  $n$ .

#### Semantic

The referent of  $n$  is not linguistically determined by *the D* (or indeed by any description or set of descriptions). (vs. 2, 3, 4)

## Epistemic

What is known or believed by a speaker who says '*n is F*' is different from what is known or believed by a speaker who says '*the D is F*'. (vs. 5)

## Modal

Sentences like '*n is F*' behave differently from sentences like '*the D is F*' when placed in modal contexts. (vs. 6)

## The Semantic Arguments

### Against thesis (2)

(2) "One of the properties, or some conjointly, are believed by A to pick out some individual uniquely."

**Rebuttal:** The Feynman–Gell-Mann example (p. 297). Most people who use the names 'Feynman' and 'Gell-Mann' cannot supply descriptions that individuate these men. The typical user of the name 'Feynman' can only say 'Feynman is a famous physicist'; still, says Kripke, he uses 'Feynman' as a proper name of Feynman.

### Against thesis (3)

(3) "If most, or a weighted most, of the  $\phi$ 's are satisfied by one unique object  $y$ , then  $y$  is the referent of 'X'."

**Rebuttal:** the Gödel–Schmidt case (p. 298). Suppose Gödel had not proved the incompleteness of arithmetic, but that the work had been done by a different man named 'Schmidt'. Gödel managed to get a hold of the manuscript, and passed the work off as his own. In this situation, the description 'the man who discovered the incompleteness of arithmetic' would refer to Schmidt, not Gödel. But, Kripke maintains, 'Gödel' still refers to Gödel — for we are imagining a situation in which **Gödel** did not discover the incompleteness of arithmetic. We are not imagining a situation in which Schmidt was Gödel!

### Against thesis (4)

(4) "If the vote yields no unique object, 'X' does not refer."

**Rebuttal:** the cases already described cover this (p. 299):

### **Feynman case:**

Most speakers' descriptive backing for 'Feynman' (e.g., 'a physicist' or 'a leading contemporary theoretical physicist') does not yield a unique object.

### **Gödel case:**

The speaker's descriptive backing may even yield **no** object. E.g., suppose **no one** had discovered the incompleteness of arithmetic, but "the proof simply materialized by a random scattering of atoms on a piece of paper" (p. 299). Then the descriptive backing for 'Gödel' would yield no object, but the name would still refer to Gödel.

## **The Epistemic Arguments**

### **Against thesis (5)**

(5) "The statement, 'If X exists, then X has most of the  $\phi$ 's' is known *a priori* by the speaker."

**Rebuttal:** the Gödel–Schmidt case again. Even if I am right in thinking that Gödel is in fact the discoverer of incompleteness, and the 'Schmidt' story just a fantasy, I still can't know this *a priori*.

## **The Modal Arguments**

### **Against thesis (6)**

(6) "The statement, 'If X exists, then X has most of the  $\phi$ 's' expresses a necessary truth."

**Rebuttal:** The Aristotle example. "It just is not, in any intuitive sense of necessity, a necessary truth that Aristotle had the properties commonly attributed to him ... It would seem that it's a contingent fact that Aristotle ever did *any* of the things commonly attributed to him today ..." (pp. 295-96).

Here a thought experiment helps to establish this. Fix on Aristotle. Suppose his parents had lived in a different town, not Stagira. Now, imagine that as a youth he never goes to Plato's academy. He stays at home, in Sparta, perhaps, where he becomes a physician, like his father. The rest of his life is virtually entirely different from the one we read about in the history books. What we have described is a possible world in which **Aristotle** has (virtually) none of the  $\phi$ 's (rather than a world in which Aristotle does not exist).

### **KRIPKE'S ALTERNATIVE: "INITIAL BAPTISMS" AND CAUSAL CHAINS**

Not an alternative theory, but a "better picture." Beginning on p. 299, left bottom:

"Someone, let's say, a baby, is born; his parents call him by a certain name. They talk about him to their friends, Other people meet him. Through various sorts of talk the name is spread from link to link as if by a chain. A speaker who is on the far end of this chain, who has heard about, say Richard Feynman, in the market place or elsewhere, may be referring to Richard Feynman even though he can't remember from whom he first heard of Feynman or from whom he ever heard of Feynman."

The idea is that there is a **causal link** between an initial use of a name (an "initial baptism") and subsequent uses by later speakers. It is this causal link, not the speaker's grasp of the descriptive content of the name, that determines which thing his use of the name refers to. Kripke calls this a "better picture" than the description theory, but not yet quite a theory (p. 300):

"A rough statement of a theory might be the following: An initial 'baptism' takes place. Here the object may be named by ostension, or the reference of the name may be fixed by a description. When the name is 'passed from link to link', the receiver of the name must, I think, intend when he learns it to use it with the same reference as the man from whom he heard it."

Kripke does not claim that this is an *analysis* of the notion of reference: "it takes the notion of intending to use the same reference as a given" (p. 300).

Kripke's picture stresses the importance of the notion of **intending to refer** in describing the causal chain. Each user of the name implicitly intends to refer, when he uses it, to the object to which those from whom he learned it intended to refer. And this chain must stretch back to an initial baptism — an event in which the object named itself figures causally.

So it's not quite right to suppose that Kripke's "picture" takes the mental component out of the theory of reference just because it replaces the description theory with a theory of causal communicative links. For the nodes in the causal chain are **intentions to refer** (and, of course, the overt acts of dubbing, naming, etc. that manifest those intentions).

## IDENTITY STATEMENTS BETWEEN NAMES

Kripke claims that when an identity statement involves a rigid and a nonrigid designator (flanking the identity sign), the statement is **not necessary**. (Cf. 'Franklin = the inventor of bifocals'. It is only a contingent fact that Franklin was the unique individual who invented bifocals.)

In general, any true statement of the form ' $N = \text{the } \phi$ ', where ' $N$ ' is a rigid designator and ' $\text{the } \phi$ ' is a nonrigid designator, will be only contingently true. For if ' $N$ ' designates the same object in all possible worlds, but ' $\text{the } \phi$ ' designates different objects in different possible worlds, there will be at least one possible world in which ' $N = \text{the } \phi$ ' is not true. Hence, it's not necessary (i.e., it is not true in all possible worlds).

Note: some true statements of the form ' $N = \text{the } \phi$ ' will be necessarily true, but that will require that ' $\text{the } \phi$ ' be a rigid designator. This is the right result, since it is intuitively clear that ' $4 = \text{the positive square root of } 16$ ' is necessarily true.

Any statement of the form ' $N = M$ ', where ' $N$ ' and ' $M$ ' are rigid designators, will be a **necessary truth** if it is true at all. (This follows from the definitions of 'rigid designator' and 'necessary truth'.)

So, since Kripke is committed to the thesis that proper names are rigid designators, he must also hold that **every identity statement involving proper names is either necessarily true or necessarily false**.

To try to make this somewhat startling thesis seem more plausible, Kripke defends it in the case of ' $\text{Hesperus} = \text{Phosphorus}$ '. ' $\text{Hesperus}$ ' is a name that has been given to the evening star. ' $\text{Phosphorus}$ ' is a name of the morning star. (That is, both names refer to Venus.)

Now it may seem that Hesperus might not have been Phosphorus (i.e., that ' $\text{Hesperus} = \text{Phosphorus}$ ' is not a necessary truth'). For we can imagine a world in which it is not the same planet that is the last visible in the morning and the first visible in the evening. In such a world, we might have named **two different planets** with the names ' $\text{Hesperus}$ ' and ' $\text{Phosphorus}$ '.

Kripke's response is that this is **not** a world in which Hesperus isn't Phosphorus. Rather, it's a world in which we might have used one of the names 'Hesperus' or 'Phosphorus' to name a different object from the one we actually use it to name.

So although 'Hesperus = Phosphorus' is a necessary truth, "The object named 'Hesperus' = the object named 'Phosphorus'" is **not**. That's because, on Kripke's view, the description "the object named 'Hesperus'" is a **nonrigid** designator. Nothing but Hesperus could have been Hesperus; but something other than Hesperus could have been **named** 'Hesperus'.

And, of course, Kripke rejects the view (espoused by W. Kneale) that the meaning of a proper name, e.g., 'Socrates', is "the man named 'Socrates'".

So, given our usage of the names 'Hesperus' and 'Phosphorus', there is no possible world in which Hesperus is not Phosphorus — for there's no possible world in which Hesperus is not **itself**.

This does not mean, of course, that one can know *a priori* that Hesperus is Phosphorus. One cannot: it took an astronomical discovery to find out that Hesperus is Phosphorus. So here we have a **necessary truth** (that Hesperus is Phosphorus) that **cannot** be known *a priori*.

The **appearance** that it is only contingently true that Hesperus is Phosphorus is due to a conflation of **epistemic** with **metaphysical** possibility. I may be in a position where it is possible, **for all I know**, that Hesperus is not Phosphorus. That is, I may not realize that the object named 'Hesperus' is identical to the object named 'Phosphorus'. That's because the evidence in the two cases (one where the two names name the same object, the other where they don't) can be **qualitatively indistinguishable**.