

I. Arguments involving names

A. Argument 1:

1. None but Derek and Burt had keys.
2. Someone who had a key took the briefcase.
3. THEREFORE, Derek or Burt took the briefcase.

B. Argument 2:

1. Everybody loves my baby, but my baby loves nobody but me.
2. THEREFORE, I am my baby.

II. Recommendations about free variables used to schematize names in deductions.

A. Use, not “ x ” and “ y ” for names, but other letters, e.g, “ a ” and “ b ”. The reason for this is to remind you that, like the free variables introduced by *EII*, name free variables are meant to stand for an unspecified, but particular element of the *DQ*, rather than for an arbitrary element of the *DQ*.

B. Do not use a name free variable in *EII*.

1. The reason for can be made clear by looking at the following illegitimate deduction:

[1]	(1)	$(\exists x)Lxa$	P
[1, 2]	(2)	Laa	$(1)aEII$
[1, 2]	(3)	$(\exists x)Lax$	$(2)EG; [2]EIE$

The use of rule *EIE* in line (3) is illegitimate, since the instantial variable, a , is free not only in the *EII* premise, but also in (1), another premise that (3) depends on.

2. Moreover, consider an argument that the last illegitimate deduction schematizes:
 - a. Someone loves Heloise.
 - b. So, call this someone Heloise, Heloise loves Heloise.
 - c. Therefore, Heloise loves someone.
3. The problem is that we have no reason to assume, as this argument clearly does, that the someone, who loves Heloise according to premise (1) is Heloise herself.

III. Conversations:

A. Russell says to Quine,

“Keynes’ wife detested Wittgenstein.”

Quine replies,

“Really? I didn’t know that Keynes is married.”

- B. Russell says to Anscombe,
 “Keynes’ wife detested Wittgenstein.”
 Anscombe responds,
 “That can’t be. Women do not detest Wittgenstein.”

IV. Descriptions: notation

- A. Descriptions are paraphrased and schematized with the inverted ι operator: “ \hat{i} ”.
- B. So, for a description of the form

the F

we write

$$(\iota x)(Fx)$$

- C. How does this work in the case of “Keynes’ wife”?

- 1. First we have to see that this phrase really means,

The woman who is married to Keynes

- 2. I.e.,

$$(\iota x)(Wx.Mxa)$$

$W\textcircled{1}$: $\textcircled{1}$ is a woman

- 3. So the schematization of the premise is:

$$D(\iota x)(Wx.Mxa)b$$

V. Descriptive Premises

- A. All this makes it possible to see the logical structure tucked away in descriptions, but it doesn’t yet show us how to do things with this structure.
- B. In order to do that, we have to introduce *descriptive premises*.
- C. The fact that a description has internal logical structure means that it does not merely refer to something in the domain. Rather, whatever it refers to has to satisfy two conditions:
 - 1. It has to make the open sentence that is the scope of the description operator \top when assigned to the free variable. So, e.g., whatever $(\iota x)Fx$ refers to has to have the property of being F .
 - 2. It has to be the unique thing that make this open sentence \top . So, e.g., whatever $(\iota x)Fx$ refers to has to be the only thing that has the property of being F .
- D. We can represent all of these features of descriptions by treating a description as just an ordinary name, but *with the addition* of a premise which states the conditions just stated.
- E. It is very important to note that what this means is that
 IF AN ENGLISH SENTENCE CONTAINS A DESCRIPTION, THEN IT IS
 SCHEMATIZED BY **TWO**, NOT **ONE**, SCHEMATA.

F. Thus, in the example we have been considering, the original sentence is schematized by the following two schemata:

1. The first is simply our original schematization:

$$Dab$$

2. But now we also add the following schema about the new name free variable:

$$Wa.Mac.(\forall x)(Wx.Mxc \supset x = a)$$

3. The first two conjuncts of this new premise say that a is a woman married to Keynes, i.e., a satisfies the descriptive condition.
4. The third conjunct says that anyone who satisfies this condition is identical to a , so a is the unique person to satisfy the condition.

VI. Deduction with Descriptive Premise

- A. Malone's beloved loves Sutherland.
- B. Malone's love is always reciprocated.
- C. THEREFORE, someone loves Malone and Sutherland.