My Analysis Applied to Quine's "Quantifiers and Propositional Attitudes"

Note: I am using a large font to make subscripts more readable.

Summary – explained in PM notation.

One can have (E x)(a R|S x)
and (E y)(b R|S y)
and not be able to infer
F(a) iff F(b)
even if x = y.

R|S can be many-one.
It is true
From u R|S y and v R|S z and y = z
one can infer either u R|S z or v R|S y.

But not F(u) iff F(v)
Because it does not imply u = v.

[Here I am using the "w_" prefix for words and "i_" prefix for ideas. I will avoid the "o_" prefix for objects as it is just confusing.]

In Detail – Using Polish notation
Suppose K =/2 u w_Cicero =/2 v w_Tully
then from
K |/2 R S w_Cicero Cicero |/2 R S w_Tully Tully
and =/2 Cicero Tully.
One can infer
K |/2 R S w_Cicero Tully |/2 R S w_Tully Cicero

But one cannot infer
=/2 w_Cicero w_Tully
and
has_6_letters/1 w_Cicero. [w_Cicero = “Cicero”]
but
has_5_letters/1 w_Tully . [w_Tully = “Tully”]

Belief is a somewhat similar relation.
Consider
(1) Tom believes [BB] Cicero denounced Catiline.
and Tom believes [BB] Tully did not denounce Catiline.
Abstractly we have for Tom at Time T
E i_denounced/2 E i_Cicero E i_Catiline E i_N E i_Tully
K K K K K K
B i_denounced/2 i_Cicero i_Catiline
B i_N i_denounced/2 i_Tully i_Catiline
S/2 i_N N
S/2 i_denounced denounced
S/2 i_Cicero Cicero
S/2 i_Catiline Catiline
S/2 i_Tully Tully
From Cicero = Tully, we can infer Tom has an inconsistent belief.
Tom but people often have inconsistent beliefs – that is not a contradiction, but it is something that needs to be explained.

Consider [honest assertion]
(2) Tom at T |- Cicero denounced Catiline.
and Tully did not denounce Catiline.
Abstractly we have for Tom at Time T
E i_denounced/2 E i_Cicero E i_Catiline E i_N E i_Tully
K K K K K K
Says/3 w_denounced/2 w_Cicero w_Catiline
Says/4 w_N w_denounced/2 w_Tully w_Catiline
R/2 w_N i_N
R/2 w_denounced i_denounced
R/2 w_Cicero i_Cicero
R/2 w_Catiline i_Catiline
R/2 w_Tully i_Tully
Since w_Tully ~= w_Cicero and i_Tully ~= i_Cicero, there is no contradiction here,

The next example is discussed by Quine in *The Ways of Paradox and Other Essays*. (pp. 185- 196).

I will use Quine's numbering for the examples.

(12) Ralph believes that the man in the brown hat is a spy.
(13) Ralph does not believe that the man seen at the beach is a spy.
But the man in the brown hat = the man seen at the beach.

First, let us analyze both with the quantifier inside the belief context.
First let us analyze (12) with my analysis of belief. Ralph BB (12) at Time T =df

K K K K K K K K K
B/14 i_E i_b i_K i_N i_E i_x i_N i_M
i_in_a_brown_hat/1 i_x i_=/2 i_b i_spy i_b
S/2 i_E E
S/2 i_b b
S/2 i_N N
S/2 i_x x
S/2 i_M M

S/2 i_in_a_brown_hat in_a_brown_hat
S/2 i_=/2 =/2
S/2 i_spy spy
S/2 i_K K

Next let us analyze (13) with my analysis of belief. Ralph BB (13) at Time T =df

N K K K K K K K K K
B/14 i_E i_b i_K i_N i_E i_x i_N i_M
i_seen_at_the_beach i_x i_=/2 i_b i_spy i_b
S/2 i_E E
S/2 i_b b
S/2 i_N N
S/2 i_x x
S/2 i_M M
S/2 i_seen_at_the_beach seen_at_the_beach
S/2 i_=/2 =/2
S/2 i_spy spy
S/2 i_K K

First let us analyze (12) again with my analysis of (not necessarily honest) assertion.

Tom asserts |- (12) at time T =df

K K K K K K K K K
Says/14 w_E w_b w_K w_N w_E w_x w_N w_M w_in_a_brown_hat w_x w_=/2 w_b w_spy w_b
R/2 w_E i_E
R/2 w_b i_b
R/2 w_N i_N
R/2 w_x i_x
R/2 w_M i_M
R/2 w_in_a_brown_hat i_in_a_brown_hat
R/2 w_=/2 i_=/2
R/2 w_spy i_spy
R/2 w_K i_K

Next let us analyze (13) with my analysis of (not necessarily honest) assertion. Except, We will take it that Ralph asserts the negative – rather than just failing to assert the positive. Ralph |- (13) at Time T =df

K K K K K K K K K
Says/15 w_N w_E w_b w_K w_N w_E w_x w_N w_M w_seen_at_the_beach w_x w_=/2 w_b w_spy w_b
R/2 w_E i_E
R/2 w_b i_b
R/2 w_N i_N
R/2 w_x i_x
R/2 w_M i_M
R/2 w_seen_at_the_beach i_seen_at_the_beach
R/2 w_=/2 i_=/2
R/2 w_spy i_spy
R/2 w_K i_K

Next, I want to consider Quine at time T2 believes that there is an x such that Tom at time T1 believes x is a spy. That is consider quantifying in. As a first step, though, as preparation, I will write out Tom at T1 believes Bertie is a spy.

E iSpy $_{\text{tom,t1}}$
E i_Bertie $_{\text{tom,t1}}$
K K
B/2 $_{\text{tom,t1}}$ i_spy $_{\text{tom,t1}}$ i_Bertie $_{\text{tom,t1}}$
S/2 $_{\text{tom,t1}}$ i_Bertie $_{\text{tom,t1}}$ Bertie
S/2 $_{\text{tom,t1}}$ i_spy $_{\text{tom,t1}}$ spy

Quine at t2 believes Tom believes at t1 Bertie is a spy is:

E iS/2 $_{\text{quine,t2}}$
K K
B/5 $_{\text{quine,t2}}$
iE iB/2 $_{\text{tom,t1}}$
iE i_Bertie $_{\text{tom,t1}}$
iE i_spy $_{\text{tom,t1}}$
iK
iK
iB/2 $_{\text{tom,t1}}$ i_spy $_{\text{tom,t1}}$ i_Bertie $_{\text{tom,t1}}$
iS/2 $_{\text{quine,t2}}$ i_Bertie $_{\text{tom,t1}}$ Bertie
iS/2 $_{\text{quine,t2}}$ i_spy $_{\text{tom,t1}}$ spy
S/2 $_{\text{quine,t2}}$ i_Bertie $_{\text{quine,t2}}$ Bertie
S/2 $_{\text{quine,t2}}$ i_spy $_{\text{quine,t2}}$ spy

Quine believes at t2 that there is someone Tom at t1 believes is a spy at is:

[I am still thinking about this – any help appreciated!!!]

$E\ iS/2_{quine,t2}$
K K
$E\ i\_x_{quine,t2}$
$B/4_{quine,t2}$
$iE\ iB/2_{tom,t1}$
$iE\ i\_spy_{tom,t1}$
iK
iK
$iB/2_{tom,t1}\ i\_spy_{tom,t1}\ i\_x_{quine,t2}$
$iS/2_{quine,t2}\ i\_spy_{tom,t1}\ spy$
$S/2_{quine,t2}\ i\_spy_{quine,t2}\ spy$

There is a complex web of beliefs involving many words and ideas. The same words and ideas occurring in many different beliefs. Our beliefs are not entirely accurate. We take our words to be about objects. Some of our ideas seem innate. And some egocentic particulars, or indexicals. But the words for them are learned through interactions with others. Most of our other words and ideas are also learned through interaction with others. Thus, there is a commonality in our R|S relations although R and S may differ between people. (The intermediate term varies widely person to person) Wittgenstein in Philosophical Investigations dismissed the internal beetle in the box as it could vary from person to person. He said it cancelled out. But, if you are a grandson, you had a father!

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