

(37)

A: Jones arrives at the airport after the scheduled
departure time

W: the plane will wait for Jones

N: nobody notices that

The argument being made is:

$$A \rightarrow W : (A \wedge N) \rightarrow W$$

$$\frac{? + F_5 \quad t_3 t_7 t_4 F \quad F_2}{}$$

There is no counterexample so the argument seems valid. However, you could argue that the plane will of course only wait for Jones (it can inflict a punishment) if they ~~do~~ know that he is late, so you could argue that the argument should actually be formalised the following way:

$$\frac{(A \wedge N) \rightarrow W : (A \wedge N) \rightarrow W}{}$$

$$\frac{t_5 F_8 F_7 t_6 + F_9 \quad t_3 t_7 t_4 F \quad F_1}{}$$

So in this case there is a counterexample and so the argument is not valid.

This, however, does not have to be the case, there could be some other mechanism that will cause the plane to wait which does not require anyone to know that

Jones is late. So, in my opinion we should apply the principle of charity and assume the latter.

33

I) A | Robin believes that A

A	?
T	?
F	.

II) A | Robin knows that A

A	?
T	?
F	.

F → however, this depends
on your definition of
what it means to know
something

III) A | Robin knows that A, But it's not true that A

A	? F	Because we just said that if something is not true, one cannot know it
T	? F	
F	? F	

Could be done as

A | (Robin knows that A $\wedge \neg A$)

A	?	?	F
T	?	F	F
F	F	F	F

~~Has this been wrong giving different results?
that is Because in this case,
Robin would never~~

~~You could argue here that there should
not be a question mark because
it's not even of A being true there is
a contradiction because~~

~~If it is a contradiction, Robin would never~~

~~believe A if A is false so both statements
can't be true ~~be~~ at the same time.~~

II)

A	the infallible clairvoyant believes that A
T	?
F	F

this depends on the definition of "believing" though. If you say that it is impossible to believe something without having thought about it, the first row becomes a "?".

II)

A B	A, B or B
T T	T
T F	F
F T	F
F F	F

(same as I)

III

A B	SUPPOSE A ; then B
T T	T
T F	F
F T	T
F F	?

it could be a counterfactual, so this one could be both

IV)

A B	SUPPOSE A ; then B
T T	?
T F	?
F T	?
F F	?

(same same as III)

Because the hypothetical world is based on reality:

Suppose the ~~rest of the~~ sky is fully black then you could still see the sun.

3.6

S : Many Students will be in Schopenhauer's lectures

H : At "Hegel's"

t : They are scheduled at the same time

E₁ : Hegel's lectures are interesting

E₂ : In Schopenhauer's

Initially you'd think it is formalised like this:

$t \rightarrow (H \vee S)$, $t, E_1 \rightarrow H, E_2 \rightarrow E_1,$
 $S \rightarrow E_2 \therefore H \wedge \neg S$

$$\frac{t \rightarrow (H \vee S) \quad + \quad |E_1 \rightarrow H| \quad |E_2 \rightarrow E_1| \quad |S \rightarrow E_2| \quad |H \wedge \neg S|}{t_1 + \underline{t_3 + t_2 + t_4} \quad + \quad t_{13} + t_5 \quad t_{11} + t_{12} \quad t_6 + t_7 \quad t_8 F \quad F_{10} + t_9}$$

So there is a counterexample,

so

However, "many students come to Schopenhauer's lectures or Hegel's lectures" does ~~not~~ contradict could be interpreted as an exclusive or, ~~as you should~~
~~suggest~~ ~~that other students~~ that there could not be many students ~~are~~ in both lectures:

	$t \rightarrow ((H \vee S) \wedge \neg(H \wedge S))$	$E_1 \rightarrow H$	$E_2 \rightarrow E_1$	$S \wedge E_2 \wedge \neg H \wedge \neg S$
1	$t_1 + \underline{t_6 + t_3 F_7} + t_2 + t_4 + \underline{t_8 F_9 F_9}$	$t + t_{10}$	$F_1 + F_{11} + F_{10}$	$F_1 + t_2 F_2$
2	$t_1 + \underline{F_6 + t_3 + t_7 + t_2 + t_4} + \underline{F_9 F_9 + t_9}$	$t + t_{10}$	$F_{11} + F_{10}, F_{13} + F_{12}, ? + F_{13}$	F

You only have to check these two because there are only two ways for an XOR to be true. So there are no counterexamples, so the assumption makes the argument valid.