



$$(((q\&p)>((p\&r)>(p>(q\&s))))>(\sim(p\&r)>\sim(p>(q\&s)))) > (q\&(r+\sim r)) ;$$

TFTT TFTT TFTT TFTT

(2.2.2)

Eqs. 2.2.1 and 2.2.2 are *not* tautologous, therefore that chain of events is suspicious.

**Remark 4.** The metaphysical question of "Was Euathlus morally wrong in not paying Protagoras for services rendered, regardless of outcome" can now be cast onto a physicalistic basis in this way. The proof tables for performance by Protagoras in Eq. 1.2 and for non-performance by Euathlus in Eq. 2.1.2 are contrasted:

$$(q\&p) > ((p\&r)>(p>(q\&s))) ;$$

TTTT TTTT TTTT TTTT

(1.2)

$$(((q\&p)>((p\&r)>(p>(q\&s))))>(\sim(p\&r)>\sim(p>(q\&s)))) > (\sim(p\&r)>\sim(p>(q\&s))) ;$$

FTFT FTFT FTFT FTFT

(2.1.2)

Eq. 2.1.2 diverges *more* from tautology than does Eq. 1.2. This means a physicalistic basis if mapped for moral theology as a recent advance. In other words, Euathlus failed to do the right thing by withholding payment in any event, so as not to violate the intended spirit of the albeit defective contract.

"Protagoras argued that if he won the case he would be paid his money."  
 [In other words, if Eq. 2.2.1, then the Protagoras lawsuit obtains payment.] (3.1.1)

$$(((q\&p)>((p\&r)>(p>(q\&s))))>(\sim(p\&r)>\sim(p>(q\&s))))>(q\&(r+\sim r)) > ((q\&r)>(p>(q\&s))) ;$$

TTTT TTTT TTTT TTTT

(3.1.2)

"If Euathlus won the case, Protagoras would still be paid according to the original contract, because Euathlus would have won his first first case."  
 [In other words, if not Eq. 3.1 then 1.1.] (3.2.1)

$$\sim(((q\&p)>((p\&r)>(p>(q\&s))))>(\sim(p\&r)>\sim(p>(q\&s))))>(q\&(r+\sim r)) > ((p\&r)>(p>(q\&s))) ;$$

TTTT TFTT TTTT TFTT

(3.2.2)

Eqs. 3.1.2 and 3.2.2 are not equivalent and *not* tautologous

"Euathlus, however, claimed that if he won, then by the court's decision he would not have to pay Protagoras."  
 [In other words, if not Eq. 3.1.1 or not 3.2.1, then not 1.1.] (4.1.1)

$$\begin{aligned} & \sim(((q\&p)>((p\&r)>(p>(q\&s))))>(\sim(p\&r)>\sim(p>(q\&s))))>(q\&(r+\sim r))>((q\&r)>(p>(q\&s))))+ \\ & \sim(\sim(((q\&p)>((p\&r)>(p>(q\&s))))>(\sim(p\&r)>\sim(p>(q\&s))))>(q\&(r+\sim r))>((p\&r)>(p>(q\&s)))) > \\ & \sim((q\&p)>((p\&r)>(p>(q\&s)))) ; \end{aligned}$$

TTTT TFTT TTTT TFTT

(4.1.2)

"If, on the other hand, Protagoras won, then Euathlus would still not have won a case and would therefore not be obliged to pay."  
 [In other words, if Eq. 3.2.1 or 3.2.2, then not 3.1] (4.2.1)

$$\begin{aligned}
& ((((((q \& p) \> ((p \& r) \> (p \> (q \& s)))) \> (\sim(p \& r) \> \sim(p \> (q \& s)))) \> (q \& (r + \sim r))) \> ((q \& r) \> (p \> (q \& s)))) + \\
& (\sim(((q \& p) \> ((p \& r) \> (p \> (q \& s)))) \> (\sim(p \& r) \> \sim(p \> (q \& s)))) \> (q \& (r + \sim r))) \> \\
& ((p \& r) \> (p \> (q \& s)))) \> \sim((q \& p) \> ((p \& r) \> (p \> (q \& s)))) ;
\end{aligned}$$

**FFFF FFF~~T~~ FFFF FFFF** (4.2.2)

Eqs. 4.1.2 and 4.2.2 are not equivalent and *not* tautologous. In fact 4.2.2 is nearly contradictory. This means regardless of who wins the lawsuit of Protagoras, Euathlus does not pay. Hence the Euathlus paradox is refuted and resolved by default in favor of Euathlus.