

## Refutation of Aristotle's and Boethius' theses

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We assume the method and apparatus of Meth8/VL4 with  $\top$  as the designated *proof* value,  $\text{F}$  as contradiction,  $\text{N}$  as truthity (non-contingency), and  $\text{C}$  as falsity (contingency). Results are a 16-valued truth table in row-major and horizontal, or repeating fragments of 128-tables for more variables.

LET  $\sim$  Not;  $>$  Imply;  $=$  Equivalent;

From: Wansing, H. (2018). Connexive conditional logic. [pdmi.ras.ru/EIMI/2018/LP/lp\\_2018-abstracts.pdf](http://pdmi.ras.ru/EIMI/2018/LP/lp_2018-abstracts.pdf)

Connexive logics are contra-classical logics. They are neither subsystems nor supersystems of classical logic, and what is characteristic of them is that they validate the so-called Aristotle's Theses and Boethius' Theses:

$$\begin{array}{llllll} \sim(\sim A > A) = (A = A) ; & \text{T N C F} & \text{T N C F} & \text{T N C F} & \text{T N C F} & (\text{AT}) \\ \sim(A > \sim A) = (A = A) ; & \text{F C N T} & \text{F C N T} & \text{F C N T} & \text{F C N T} & (\text{AT}') \\ (A > B) > \sim(A > \sim B) ; & \text{F C N T} & \text{F C N T} & \text{F C N T} & \text{F C N T} & (\text{BT}) \\ (A > \sim B) > \sim(A > B) ; & \text{F C N T} & \text{F C N T} & \text{F C N T} & \text{F C N T} & (\text{BT}') \end{array}$$

Eqs. AT, AT', BT, and BT' are *not* tautologous, hence refuting those theses of Aristotle and Boethius.

**Remark:** Because  $\sim\text{AT} = \text{AT}' = \text{BT} = \text{BT}'$ , what follows is that using conditionals to justify connexive logic makes Wansing's nightmare worse.