

## Refutation of conditional necessitarianism

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**Abstract:** The seminal definition of conditional necessitarianism is *not* tautologous. The spin-off is to deny the following five conjectures, so based thereon: Truthmaker-dependence (TD); Truthbearer-requirement (TB); Aboutness-requirement (AC); and versions of  $\text{TF}$  named deflationary and inflationary. Therefore these six conjectures form a *non* tautologous fragment of the universal logic  $\text{VL4}$ .

We assume the method and apparatus of Meth8/ $\text{VL4}$  with Tautology as the designated proof value,  $\mathbf{F}$  as contradiction,  $\mathbf{N}$  as truthity (non-contingency), and  $\mathbf{C}$  as falsity (contingency). The 16-valued truth table is row-major and horizontal, or repeating fragments of 128-tables, sometimes with table counts, for more variables. (See ersatz-systems.com.)

LET  $\sim$  Not,  $\neg$ ; + Or,  $\vee$ ,  $\cup$ ,  $\sqcup$ ; - Not Or; & And,  $\wedge$ ,  $\cap$ ,  $\sqcap$ , ; ; \ Not And;  
> Imply, greater than,  $\rightarrow$ ,  $\Rightarrow$ ,  $\mapsto$ ,  $>$ ,  $\supset$ ,  $\gg$ ; < Not Imply, less than,  $\in$ ,  $<$ ,  $\subset$ ,  $\prec$ ,  $\neq$ ,  $\ll$ ,  $\leq$ ;  
= Equivalent,  $\equiv$ ,  $:=$ ,  $\Leftrightarrow$ ,  $\leftrightarrow$ ,  $\stackrel{\Delta}{\approx}$ ,  $\approx$ ,  $\simeq$ ; @ Not Equivalent,  $\neq$ ;  
% possibility, for one or some,  $\exists$ ,  $\diamond$ ,  $\mathbf{M}$ ; # necessity, for every or all,  $\forall$ ,  $\square$ ,  $\mathbf{L}$ ;  
( $z=z$ )  $\mathbf{T}$  as tautology,  $\top$ , ordinal 3; ( $z@z$ )  $\mathbf{F}$  as contradiction,  $\emptyset$ , Null,  $\perp$ , zero;  
(% $z>\#z$ )  $\mathbf{N}$  as non-contingency,  $\Delta$ , ordinal 1; (% $z<\#z$ )  $\mathbf{C}$  as contingency,  $\nabla$ , ordinal 2;  
 $\sim(y < x)$  ( $x \leq y$ ), ( $x \subseteq y$ ), ( $x \sqsubseteq y$ ); ( $A=B$ ) ( $A\sim B$ ).  
Note for clarity, we usually distribute quantifiers onto each designated variable.

From: Schipper, A. (2019). Fundamental truthmakers and non-fundamental truths.  
[link.springer.com/article/10.1007%2Fs11229-019-02266-x](https://link.springer.com/article/10.1007%2Fs11229-019-02266-x)

**Abstract** Recently, philosophers have tried to develop a version of truthmaker theory which ties the truthmaking relation ( $\text{T-REL}$ ) closely to the notion of fundamentality. In fact, some of these *truthmaker-fundamentalists* ( $\text{TF-ists}$ ), as I call them, assume that the notion of fundamentality is intelligible in part by citing, as central examples of fundamentals, truthmakers, which they understand necessarily as constituents of fundamental reality. The aim of this paper is first to bring some order and clarity to this discussion, sketching how far  $\text{TF}$  is compatible with orthodox truthmaking, and then critically to evaluate the limits of  $\text{TF}$ . It will be argued that truthmaker theory cannot directly help with articulating the nature of fundamental reality and that  $\text{T-REL}$  does not necessarily relate truths with anything more fundamental, unless what is fundamental is what the truthbearers in question are about. I shall argue that  $\text{TF}$  faces a rather thorny dilemma and some general problems. I shall present two exhaustive types of fundamentalism on which a version of  $\text{TF}$  can be based: deflationary and inflationary. It will be argued that each version of  $\text{TF}$  runs into significant troubles accounting for all truth, specifically ordinary truths and metaphysical truths about the relations between ordinary facts and fundamental facts. I shall not attempt to solve these problems, but rather, at the end, diagnose the issues with  $\text{TF}$  as lying in the difficulties with reconciling the manifest image with the scientific and metaphysical images of reality.

### 2 Preliminaries: truthmaking

First, some preliminaries about truthmaker theory. Here are several basic assumptions, which I shall assume any version of truthmaker theory must accept.

*Truthmaker-dependence (TD):* the truthmaking relation ( $\text{T-REL}$ ) is a species of dependence; generally, truths asymmetrically depend for their truth on truthmakers.

*Truthbearer-requirement (TB)*: T-REL is a relation which, given normal linguistic practices, only rarely has truthbearers on both sides of the relation.

*Aboutness-requirement (AC)*: truths are made true by the parts (or aspects) of reality *which they are about*.

*Necessitation (NEC)*: truthbearer  $p$  is made true by truthmaker  $x$  iff in all possible worlds where  $p$  exists and  $x$  exists,  $p$  is true,<sup>9 9</sup> This is what Merricks (2007, p. 7) articulates as *conditional necessitarianism*. [Merricks, T. (2007). *Truth and ontology*. Oxford: Clarendon Press.]  
(1.1)

LET  $p, q$ : truthbearer  $p$ , truthmaker  $x$ .

$$((\%p\&\%q)\>(p=(p=p)))\>(q\>(p=(p=p))) ;$$

TTCT TTCT TTCT TTCT

(1.2)

Eq. 1.2 is *not* tautologous. This refutes conditional necessitarianism. The spin-off is to deny the following five conjectures of the first author so based thereon: Truthmaker-dependence (TD); Truthbearer-requirement (TB); Aboutness-requirement (AC); and versions of  $TF$  named deflationary and inflationary.