Refutation of the Church-Rosser theorem

Abstract: The Church-Rosser theorem evaluates as *not* tautologous, hence forming a *non* tautologous fragment of the universal logic VŁ4.

We assume the method and apparatus of Meth8/VŁ4 with Tautology as the designated proof value, **F** as contradiction, N as truthity (non-contingency), and 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 ~ Not, ¬ ; + Or, ∨, ∪, ⊔ ; - Not Or; & And, ∧, ∩, ⊓, · , ⊗ ; \ Not And;
> Imply, greater than, →, ⇒, ↦, ≻, ⊃, ↠ ; < Not Imply, less than, ∈, ≺, ⊂, ⊬, ⊭, ↞, ≲ ;
= Equivalent, ≡, :=, ⇔, ↔, ≜, ≈, ≃ ; @ Not Equivalent, ≠, ⊕;
% possibility, for one or some, ∃, ◊, M; # necessity, for every or all, ∀, □, L;
(z=z) T as tautology, ⊤, ordinal 3; (z@z) **F** as contradiction, Ø, Null, ⊥ , zero;
(%z>#z) N as non-contingency, Δ, ordinal 1; (%z<#z) C as contingency, ∇, ordinal 2;
~(y < x) (x ≤ y), (x ⊆ y), (x ⊑ y); (A=B) (A~B).
Note for clarity, we usually distribute quantifiers onto each designated variable.

From: en.wikipedia.org/wiki/Church–Rosser_theorem

If term *a* can be reduced to both *b* and *c*, then there must be a further term *d* (possibly equal to either *b* or *c*) to which both *b* and *c* can be reduced. (1.1)

LET p, q, r, s: a, b, c, d.

(p>(q&r))>(%(s=(q+r))>((q&r)>s)) ;
TTTT TTNN TTTT TTTT (1.2)

Remark 1.2: Eq. 1.2 may also be rendered as
%(s=(q+r))>((p>(q&r))>((q&r)>s)) with the same truth table result. (1.3)

Eqs. 1.2 and 1.3 are *not* tautologous, hence refuting the Church-Rosser theorem.