GUIDO GHERARDI, AND EUGENIO ORLANDELLI, Logics of super-strict implications.

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C.I. Lewis' [3] strict implication (\exists) is a strengthening of material implication (\supset) that avoids its paradoxes— $\neg B \supset (B \supset A)$ and $A \supset (B \supset A)$. It is meant to provide a formal explication of entailment-related uses of implication. Connexivists [4] and relevantists [1] have argued that the paradoxes of strict implication— $\bot \exists A$ and $B \dashv \top$ —are a reason to discard \dashv and they have proposed alternative implications that are paradox-free. One limitation of their proposals is that they involve a major departure from classical logic.

Super-strict implication (\triangleright) strengthens \neg in order to avoids its paradoxes: $A \triangleright B$ is true whenever $A \supset B$ is necessary and A is possible, see [2]. In this way we obtain a paradox-free implication that is compatible with classical logic. This talk provides some motivations for \triangleright and studies proof-systems for some important logics of \triangleright .

[1] A.R. ANDERSON AND N.D. BELNAP, *Entailment. The Logic of Relevance and Necessity. Vol. 1*, Princeton University Press, 1975.

[2] G. GHERARDI AND E. ORLANDELLI, Super-strict implications, Bulletin of the Section of Logic, vol. 50 (2021), no. 1, pp. 1–34.

[3] C.I. LEWIS AND C.H. LANGFORD, *Symbolic Logic*, Century Co, 1932.

[4] E.J. NELSON, Intensional relations, Mind, vol. (1930), no. 156, pp. 440-453.