

Correction to: Grounding, Conceivability, and the Mind-Body Problem

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In my (2018) article, I wrote: ‘Relevant validity can be defined via a ternary relation, such that $\llbracket \phi \rightarrow \psi \rrbracket^\alpha = 1$ iff $\llbracket \phi \rrbracket^\beta \leq \llbracket \psi \rrbracket^\gamma$ and $R(\alpha, \beta, \gamma)$, where the parameters, α , β , and γ , range over epistemic possibilities. Then the irrelevant entailment, $\phi \wedge \neg\phi \rightarrow \psi$, can be avoided by setting $\llbracket \phi \rrbracket^\beta = 1$; $\llbracket \psi \rrbracket^\gamma = 0$; $\llbracket \phi \rrbracket^\beta = 0$; while $\llbracket \psi \rrbracket^\gamma = 1$ ’ (Elohim, 2018: 921).

In my (2022) correction, I wrote that my countermodel to *ex falso quodlibet*, i.e. explosion, $\forall\psi\exists\phi[\phi \wedge \neg\phi \rightarrow \psi]$, was invalid. My correction was, however, not necessary, because my characterization of relevant validity and the invalidity of explosion was correct.

Inconsistent worlds are a sufficient condition for avoiding explosion, because otherwise the conditional would be true, because it would have a false instead of paraconsistent antecedent (Mares, 2020).

Thus, my characterization of the reason for which explosion is false in relevance logic was not incorrect.

Belnap’s variable sharing principle is a necessary condition for explosion to be invalid in relevance logic (Mares, 2020: §1). Belnap’s variable sharing principle (Anderson and Belnap, 1975: §22.1.3) states that ‘no formula of the form $A \rightarrow B$ can be proven in a relevance logic if A and B do not have at least one propositional variable (sometimes called a proposition letter) in common and that no inference can be shown valid if the premises and conclusion do not share at least one propositional variable’ (Mares, 2020). Explosion does not satisfy the variable sharing principle.

References

Anderson, A.R., and N. Belnap. 1975. *Entailment: The Logic of Relevance and Necessity, Vol. 1*. Princeton University Press.

Elohim, D. 2018. Grounding, Conceivability, and the Mind-Body Problem. *Synthese*, Vol. 195.

*"Grounding, Conceivability, and the Mind-Body Problem" was published under the name, Hasen Joseph Khudairi. I changed my name, from Hasen Joseph Khudairi and Timothy Alison Bowen, to David Elohim in April, 2024. Please cite the 2018 paper, the 2022 correction, and this correction, under the name, ‘Elohim, David’.

Elohim, D. 2022. Correction to: Grounding, Conceivability, and the Mind-Body Problem. *Synthese*, Vol. 200, No. 158.

Mares, E. 2020. Relevance Logic. *The Stanford Encyclopedia of Philosophy* (Winter 2020 Edition), E.N. Zalta (ed.), URL = <<https://plato.stanford.edu/archives/win2020/entries/logic-relevance/>>