

A2: Philosophical Logic  
Lost in Translation: the Logic of Paradox  
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**Short abstract**

We show that the Logic of Paradox (*LP*) (Priest 1979) can be embedded in the modal logic *S5* by way of a translation of the language of propositional logic into a fragment of the language of modal logic. On the basis of our translation, we argue that Slater (1995) is right in claiming that *LP*'s true contradictions are actually true subcontraries and that Lewis (1982) hit the mark with his claim that *LP* can best be understood as a logic for ambiguity. Therefore, if we want a formal semantics and a philosophical interpretation of *LP*, we can completely rely on classical logic.

**Extended abstract**

Over the last three decades Graham Priest has been recommending the Logic of Paradox (*LP*) (Priest 1979) as the logic we need once we have realized that the best way to handle the logical paradoxes is to bite the bullet and accept that the paradoxical statements in, say, the Liar are both true and false. *LP* validates all classical tautologies but not all classical inferences: it never takes us from true premises to a false conclusion, even if one of the premises is both true and false. To salvage reason in the face of true contradictions we need, so Priest argues, *LP*. But does *LP* need true contradictions?

We show that *LP* can be embedded in the modal logic *S5* by way of a translation of the language of propositional logic into a fragment of the language of modal logic. Our translation establishes a systematical relation between *LP* and *S5* from a classical perspective. On the basis of our translation, we argue that Slater (1995) is right in claiming that *LP*'s true contradictions are actually true subcontraries and that Lewis (1982) hit the mark with his claim that *LP* can best be understood as a logic for ambiguity. Therefore, if we want a formal semantics and a philosophical interpretation of *LP*, we do not need to buy into dialetheism (the claim that there are true contradictions): we can completely rely on classical logic for modelling and interpreting *LP*. The Logic of Paradox can do perfectly without dialetheism.

To establish these claims, we take the following steps. First, we present the standard semantics for *LP*. Second, we recall Restall's (1997) alternative semantics for *LP*. Third, we propose our translation and show that it does the job of embedding *LP* in *S5*. Finally, we discuss Slater's and Lewis's claims about *LP* and argue that both claims are supported by our translation.

**References**

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Restall, G. (1997). Ways things can't be. *Notre Dame Journal of Formal Logic* 38: 583–596.  
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