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Taken by surprise: the paradox of the surprise test revisited. (English) Zbl 0614.03005
J. Philos. Logic 15, 281-304 (1986).

This paper analyses the surprise exam paradox. It gives four formulations, each of which remedies what may be taken to be a defect in a prior formulation. In the final version, the information provided by the teacher turns out to be genuinely paradoxical (consistent and inconsistent). The informal analyses are supported by translation into a theory in a language with provability and fixed point operators. A semantics for the language is provided, and the theory is proved sound with respect to it.

As an analysis of the paradox the approach is rather dubious. For it supposes "knows" to mean "is provable from the information provided". But this assumes that the information is known to be true, which, arguably, is exactly what the paradox shows to be false. The paper can, however, be seen as supporting this conclusion. For if the information is known to be correct then the supposition is a reasonable one in the context, and, as the paper then shows, a most plausible interpretation of the situation ends up in a knot.

Reviewer: [G.Priest](#)

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