

CAN THERE BE VAGUE OBJECTS?

By GARETH EVANS

IT is sometimes said that the world might itself *be* vague. Rather than vagueness being a deficiency in our mode of describing the world, it would then be a necessary feature of any true description of it. It is also said that amongst the statements which may not have a determinate truth value as a result of their vagueness are identity statements. Combining these two views we would arrive at the idea that the world might contain certain objects about which it is a *fact* that they have fuzzy boundaries. But is this idea coherent?

Let '*a*' and '*b*' be singular terms such that the sentence '*a=b*' is of indeterminate truth value, and let us allow for the expression of the idea of indeterminacy by the sentential operator ' ∇ '. Then we have:

$$(1) \quad \nabla(a=b).$$

(1) reports a fact about *b* which we may express by ascribing to it the property ' $\hat{x}[\nabla(x=a)]$ ':

$$(2) \quad \hat{x}[\nabla(x=a)]b.$$

But we have:

$$(3) \quad \sim \nabla(a=a)$$

and hence:

$$(4) \quad \sim \hat{x}[\nabla(x=a)]a.$$

But by Leibniz's Law, we may derive from (2) and (4):

$$(5) \quad \sim(a=b)$$

contradicting the assumption, with which we began, that the identity statement '*a=b*' is of indeterminate truth value.

If 'Indefinitely' and its dual, 'Definitely' (' Δ ') generate a modal logic as strong as S5, (1)–(4) and, presumably, Leibniz's Law, may each be strengthened with a 'Definitely' prefix, enabling us to derive

$$(5') \quad \Delta \sim(a=b)$$

which is straightforwardly inconsistent with (1).

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