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Empty terms

The philosophical foundations of supervaluational semantics for free logic

According to the characterization in Morscher, E., and Simons, P. (2001, 2), a logical system L is a free logic iff (1) L is free of existential presuppositions with respect to the singular terms of L , (2) L is free of existential presuppositions with respect to the general terms of L , and (3) the quantifiers of L have existential import. Free logics count as untrue sentences correctly formalized as $\exists x(x = a)$, such as 'Vulcan exists', or those correctly formalized as $\text{Pa} \rightarrow \exists x Px$, such as 'if Vulcan is a planet, then Vulcan exists'. Free logics are classified as negative (all atomic sentences are false), positive (some, $a = a$ in particular, are true) and neutral (all are neither true nor false). In this paper, I would like to explore the philosophical foundations for positive free logics based on a supervaluationist semantics. I reject negative free logic, mainly because I reject bivalence. As Lehmann (2002) notes (2002, 226), Burge's (1974) justification for the stipulation that atomic sentences with vacuous terms are false presupposes it; the same applies to Sainsbury's (2005, 2.3). Lehmann correctly criticizes a philosophical justification for supervaluationist positive free logic by Bencivenga (1986) based on a "counterfactual theory of truth": "Why should truth, which is ordinarily regarded as correspondence to fact, be reckoned in terms of what is contrary to fact? Why should we reckon that 'Pegasus is Pegasus' is true because it would be true if, contrary to fact, 'Pegasus' did refer?" (op. cit., 233), concluding, "If supervaluations make sense in free logic, I believe we do not yet know why" (ibid). I will explore the possibility of answering Lehman's well-taken concern, on the assumption that the intuitions that led Bencivenga to appeal to a "counterfactual theory of truth" can in fact be better captured on the assumption that logical properties are predicated relative to "diagonal propositions" or "primary intensions" expressed by utterances, not the "horizontal propositions" or "secondary intensions" they express. I will then argue that we can make sense on this basis of the appeal to a supervaluationist semantics for clear-cut cases of sentences including vacuous terms which we would like to count as true, such as 'Vulcan is a planet, if it exists'; and I will argue that intuitively unclear cases, such as 'Vulcan is identical to itself' should then be left as "spoils for the victor".

Bencivenga, Ermanno (1986): "More free logic", in D. Gabbay & F. Gnthner (eds.), *Handbook of Philosophical Logic*, vol. III, Dordrecht: Reidel, 373-426.

Burge, Tyler (1974): "Truth and Singular Terms," Nos 8, 309-25.

Lehmann, Scott (2002): "More free logic", in Gabbay, ed. *Handbook of Philosophical Logic*, 2nd edition, Vol. 5, Kluwer-Academic Publishers 197-259.

Morscher, E., and Simons, P. (2001): "Free Logic: A Fifty-Year Past and An Open Future", in Alexander Hieke and Edgar Morscher (eds.): *New Essays in Free Logic*, Dordrecht: Kluwer, 134.

Sainsbury, Mark (2005): *Reference without Referents*, Oxford: Clarendon Press.