

Doctoral School in Philosophy - FISPPA - University of Padua, COGITO - Research Center in Philosophy, Bologna

Workshop **On Philosophy of Logic**

12 May 2015

Sala Stefanini, P.zza Capitaniato 3 Padova (Italy)

15-16.15 Hanoch Ben-Yami (Central European University - Budapest)The Quantified Argument Calculus

Abstract. This is a new system of logic I have been developing, which incorporates quantification in a way quite unlike the way it is done by the Predicate Calculus. My system is closer both to the logic of natural language and to Aristotelian logic than the Predicate Calculus is, it's powerful, has interesting extensions to modal logic, plural logic and more. The research into its ramification is work in progress.

16.30 -17.45 Francesca Boccuni (San Raffaele University - Milan) Metaphysically lightweight abstraction

Abstract. An abstraction principle has the form $\$F = \$G \leftrightarrow R(F, G)$, where $\$$ is an abstraction operator mapping Fregean concepts into objects, and R is an equivalence relation holding between concepts. Abstraction principles trace back to Frege. Well-known examples are Hume's Principle and Basic Law V. These principles provide identity conditions for the individuation of abstracta, since they provide a means to identify the entities the identity statement of the left-hand side involves, by appealing to the identity criterion embodied by the equivalence relation on the right-hand side. By individuation, they also provide a way to attach referents to the abstract-terms on the left-hand side. Famously, though, abstraction principles fail to provide sufficient conditions for such an individuation, and thus, it may be argued, they fail to provide a way to fix the reference of the abstract-terms they govern. This is known as the Julius Caesar problem. By the notion of parametric reference in logico-mathematical reasoning in Brandom (1996), Breckenridge-Magidor (2012), Pettigrew (2008), Shapiro (2008, 2012), I propose to detach individuation of abstracta from the fixing of reference of abstract-terms. I argue for this view and I provide an appropriate semantics for parametric reference. Furthermore, I investigate a possible argument against this view, according to which the philosophical advantages of the (neo-)Fregean interpretation of abstraction principles as unveiling the nature of Fregean abstracta are lost by the approach via parametric reference, and make this latter approach philosophically unsubstantial. As a reply, I claim that, by using parametric reference, philosophical advantages other than those the (neo-)Fregeans envisage may be obtained. In this respect, I investigate the relation between parametric reference and the notion of invariance under permutations, recently put forward by Antonelli (2010), in order to retrieve the logicity of abstraction principles on different grounds than the (neo-)Fregeans'.

Organization:

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