

Bolzano in Prague 2017

Research Questions for discussion

1. To what extent did Bolzano's belief in an objective connection between true judgements (beginning in BD II, §2) probably arise from his reflections on mathematics?
2. Can we really identify explanatory proofs in mathematics with well-grounded proofs in Bolzano's sense? (The idea was challenged at our meeting – as an example the proof in RB was presumably regarded as well-grounded by Bolzano but it does not seem explanatory.)
3. Can Bolzano's apparent belief that the well-grounded proof of a theorem is unique or 'preferred' (e.g. BD II, §30) be reconciled with the practice and needs of modern mathematics?
4. Suppose we agree with Fuentes Guillén's challenge to the 'traditional reading' of Bolzano in regard to analysis. What do we put in its place? Fuentes Guillén seems to suggest that Bolzano's proposal was 'sui generis' and based on his notion of 'variable quantity'. But the latter is only explained (in the Longer summary on the webpage) negatively, i.e. "not a, b, c, d" on p.6. I do not know if the notion is developed in a positive fashion in the thesis. It's a very important notion which others have, of course, discussed. It probably deserves a thesis in itself. What are the promising sources and directions for developing this?
5. Another important issue from Fuentes Guillén thesis is the following (already mentioned in the Google group). What are the influences between the authors discussed in section B.2 (Segner, Kästner and Karsten) and Bolzano's teachers and Bolzano himself? If this is developed in the thesis, where? If not, why choose Segner and Karsten? We already know something of Kästner's influence.
6. There are lots of issues arising from Blok's thesis. For me, the most interesting chapter is 6. But I begin with chapter 2 and the idea that Kant treats geometry as a system of symbols. Of course the relationship of 'in abstracto' and 'in concreto' is very important, the discussion here is very interesting. What have others said about this regarding Kant's Prize Essay? What has Peirce to say about this?
7. "In line with the interpretation of de Jong and Anderson, the focus on mereological notions allows for a precise explanation of Kant's conception of analytic judgments in terms of a composition of subordination between genus and species (§3.3)." I don't yet understand this. I am extremely interested in the view of mathematics as a construction. Presumably the mereological perspective contributes to this. How?

Please feel free to add to these questions. And to join the Google group where we can discuss these questions. Let me know by email if you would like to join the Google group. Let me know your questions – and suggestions for comments, directions, answers etc. We can easily set up new threads for each question. But I await any interest first!

Steve Russ