

Reading Guide #23 - Plenitudinous Platonism

Mark Balaguer, “On Plenitudinous Platonism” and “A New Platonist Epistemology”

“On Plenitudinous Platonism”

1. What is FBP?
 2. How does FBP differ from standard versions of platonism?
 3. Should platonists be structuralists? Explain.
 4. Do mathematical objects have non-relational properties? Explain.
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“A New Platonist Epistemology”

5. How does FBP respond to the Benacerraf challenge to platonism?
6. What is Field's Nepalese villages argument? How does Balaguer respond? Consider thin and thick beliefs and the Santa Claus analogy.
7. What is the difference between internalist and externalist accounts of the reliability of one's beliefs? Do we need an internalist account of mathematical knowledge?
8. In what sense is FBP equivalent to EWA? Are the hypotheses of the existence of an external world and the existence of any mathematical objects posited by a consistent theory equally plausible?
9. Are ZFC and ZF+ C contradictory theories? How does FBP embrace them both? How does FBP embrace different sizes of the continuum?
10. How does FBP seem to conflict with mathematical objectivity and practice, especially concerning open mathematical questions?
11. How does Balaguer argue that FBP is actually presumed by mathematical practice?
12. What are standard models? How does FBP have a problem with standard models? How does Balaguer explain our interest in them?
13. Does FBP deny the existence of a universe of all sets? Explain.
14. What does FBP say about sentences like ‘ $2+2=5$ ’ and ‘there is no number seven’?
15. What problem might arise for FBP by considering cases in which mathematical facts were different? How does Balaguer respond?
16. How does FBP support mathematical freedom?
17. Distinguish semantic from syntactic consistency. Describe the Field/Kreisel view that neither of these concepts captures our intuitive notion.
18. Why does Balaguer want to show that FBP can use an anti-platonist notion of consistency?
19. How does FBP interpret mathematical knowledge as logical knowledge?