

Reading Guide #22 - The Platonist Against the Explanatory Argument
Russell Marcus, "How Not to Enhance the Indispensability Argument"

1. Describe the first preliminary claim. How is the indispensability argument stronger than the applicability argument?
2. What kinds of uses of mathematics are relevant to the indispensability argument?
3. Distinguish the metaphysical and epistemic senses of 'explanation'. How are epistemic explanations agnostic about ontological commitments?
4. Describe QIA. How are dispensabilist projects apt responses to it?
5. How do instrumentalist weaseling responses to QIA differ from dispensabilist responses? How does QIA resist weaseling?
6. How does EIA differ from QIA?
7. What problems arise for Colyvan's supporting examples for EIA?
8. Describe Baker's cicada case. What problem does Bangu raise for it?
9. How do Bangu's four desiderata support his banana game example?
10. How does the difference between metaphysical and epistemic explanations lead to a problem for EIA?
11. Can a nominalistic reformulation fail to conserve explanatory strength? Explain.
12. How do considerations of mathematical explanation show that EIA relies on an epistemic concept of explanation?
13. Is the nature of mathematical explanation relevant to the success of EIA? Explain.
14. How do EIA and QIA differ in their vulnerability to weaseling?
15. Describe the middle ground between the weasel and the indispensabilist?