

Reverse Outline 1: Castillo Brache

1 Introduction

- Defines parachute science and its ethical problems
- Outlines paper structure
- Argues main issue is **distributive justice**

2 Criteria for Parachute Science

- Provides preliminary definition from literature
- Distinguishes from broader scientific colonialism
- Lists necessary criteria:
 - Research conducted outside researcher's affiliated country
 - No meaningful collaboration with local researchers
- Flexible criteria: evidence of non-collaboration

3 Case Study: Irritator Challengeri and Harms of Parachute Science

- Introduces I. challenger case
- Three types of harms:
 - Non-reciprocal exploitation of resources
 - Lack of collaboration in research design
 - Lack of involvement during investigation
 - Lack of collaboration in data analysis and publication
 - Loss of knowledge and heritage for local communities
 - Difficulty accessing exported objects
 - Loss of paleontological and cultural heritage
 - Impact on education and diversity in the field
 - Increased likelihood of poor epistemic quality
 - Erosion of trust in science by local communities
 - Missed opportunities for knowledge of future fossil localities
 - Risk of research retraction due to ethical misconduct

4 Distributive Epistemic (In)Justice

- Defines distributive epistemic injustice
- Irzik and Kurtulmuş's framework
- Applies framework: parachute science fails to meet requirements
 - Failure to produce necessary knowledge for citizens
 - Failure to produce knowledge for effective pursuit of justice
 - Willful creation of ignorance
 - Neglect of social groups and weighty interests

5 Conclusion: Steps Toward Meaningful Change

- Critiques inadequate ethics statements (I. challenger case)
- Proposes steps for developing collaborative relationships:
 - Mutual transparency and trust
 - Honest communication about research ramifications
 - Borrowing from literature on indigenous collaboration
- Institutional responsibility in oversea research
- Broader applicability of harm taxonomy
- Reaffirmation: parachute science as **distributive epistemic injustice**