

The Incentivised University ***Scientific Revolutions, Policies, Consequences***

Seán Mfundza Muller

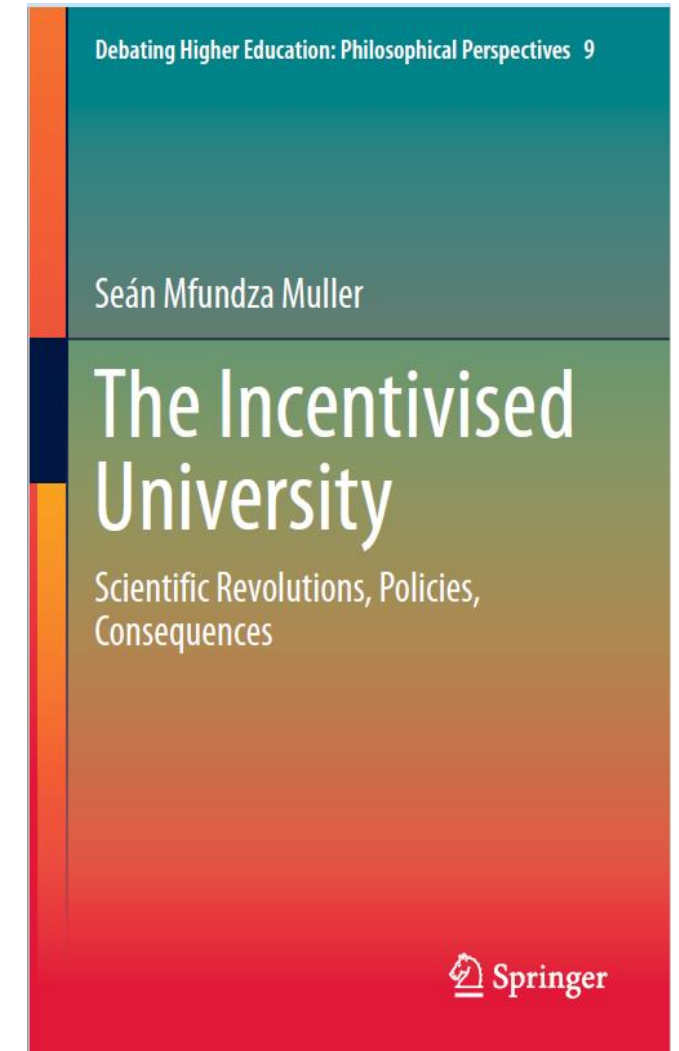
Johannesburg Institute for Advanced Study (JIAS), University of Johannesburg

Annual National Scholarly Editors' Forum (NSEF) Meeting, ASSAf (virtual)

21 November 2022

Overview and structure

1. Introduction
 2. What Is at Stake: Higher Education for Society
 3. The Dynamics of Scientific Progress
 4. Philosophy of Science with Consequences
 5. The Existence and Dangers of Normal Science
 6. The Dynamics of Consensus and Academic Communities
 7. From Accountability to Managerialism and Incentives
 8. Incentive Mechanisms in Modern Higher Education
 9. Research Impact and Incredible Certitude
 10. Rewarding Normal Pseudoscience and Facsimile Science
 11. Economics, Facsimile Science and Societal Harm
 12. Variation Across Disciplines, Societies, and Institutions
 13. Epistemic Hierarchies, Decolonisation and the Periphery
 14. Scientific Revolutions Will Not Be Incentivised
- What is this about and why should you care*
- Philosophy of science*
- Dynamics of modern higher education*
- Linking the philosophy to the actual dynamics*
- Nuances and variation*
- Main conclusion*



Writing on related concerns for some time

EDUCATION

Publish or perish – and damage too?

Sen Muller 13 Apr 2012



International Journal of Educational
Development

Volume 52, January 2017, Pages 58-67

Academics as rent seekers: distorted incentives in higher education, with reference to the South African case

Seán M Muller

Proceedings of the 2017 Scholarship of Teaching and Learning (SoTL) in the South Conference
Johannesburg, 24-27 July, 2017

What Does an (South) African Economics Look Like?

Seán M. Muller¹

University rankings a flawed tool

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The manipulative game of comparison and quantification turns institutions into players, writes Sean Muller.

EDUCATION

The university is not a factory

Seán Mfundza Muller 12 Oct 2018



Points of emphasis

In the remainder of the presentation I will focus on:

1. The crux of the general argument – from epistemology to policy
2. Variation across disciplines, societies and institutions
3. Implications for the periphery and links to decolonisation
4. Some thoughts for South Africa

The general argument

- ❑ The primary purpose of intellectual inquiry in the natural and social sciences is better understanding and knowledge of the world, through approximation of truth
- ❑ The stated purpose of incentives for research in higher education is to advance progress – intellectual or societal
 - Prompts the question: should we expect such incentives to advance progress?
- ❑ Careful consideration of how incentives combine with extant dynamics (e.g. of community of inquirers) suggests not
 - In good scenarios incentives make little difference, in bad scenarios make the situation worse
- ❑ ‘Scientific revolutions will not be incentivised’
 - Could/should have added: ‘and normal science does not need to be, it’s harmful characteristics needs to be curtailed’

The general argument (graphical version)

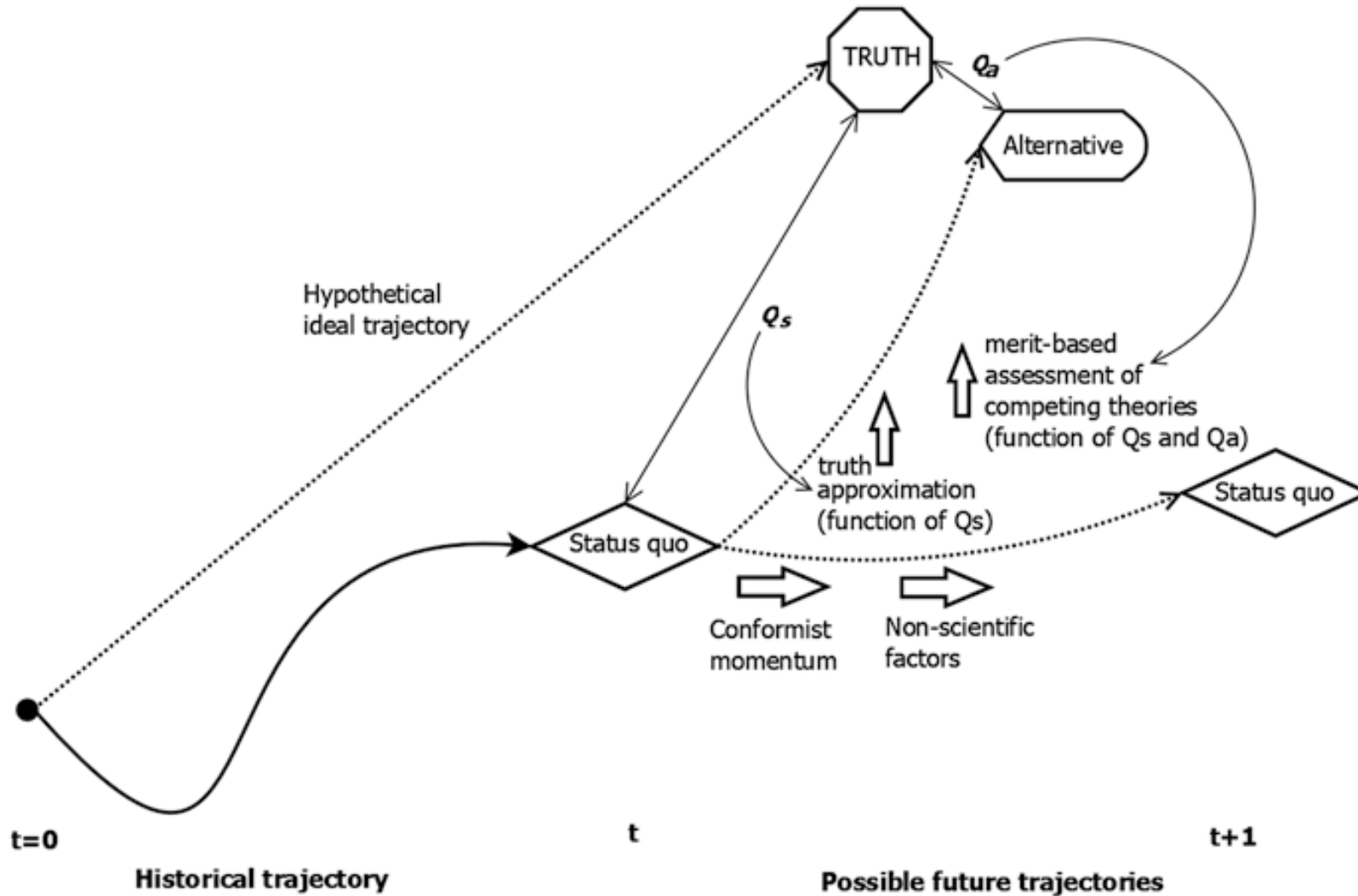


Fig. 2.1 Scientific inquiry as truth-seeking

If not incentives, then...what?

- ❑ Focus on aligning actual dynamics with the foundational principles
- ❑ E.g. there is nothing about the following that are consistent with, or required by, truth-seeking and the pursuit of knowledge: bullying, harassment, intellectual theft, fraud, methodological misconduct, cronyism, peer or prestige effects, etc
 - Some contrarian exercises in the philosophy literature but should not be taken very seriously
- ❑ In the concluding chapter I reference literatures on norms and institutions, but also caution against over-intellectualising the approach
 - Many improvements are possible that are quite obvious – what is lacking is the commitment to follow through on the foundational principles of the academy

(Note: this is a different discussion from that of how we allocate societal resources to areas of inquiry)

Variation: across disciplines, societies and institutions

❑ Disciplines

three characteristics of disciplines that matter: the ontological properties of the area of inquiry, the epistemological merits of the dominant methodological approach(es), and the culture and norms of the community of inquirers

❑ Societies

two broad considerations at the national level. The first is how countries – their governments, higher education bodies, and universities – reflect these influences in actual policy. The second is the prevailing national environment within which communities of scientific inquirers operate, including the characteristics of those communities themselves

❑ Institutions

cannot separate the question of potential institutional variation from the decision-making structures in universities. The more that these structures...reflect...managerialist conceptions of progress, the less likely there is to be any resistance to...pressures towards metric-based incentives

Implications for the periphery and decolonisation

...there are various reasons why it is important to connect these issues to the preceding analysis and framework ...First, core-periphery dynamics can be a major contributing factor to the harm caused by managerialist interventions to assess and incentivise scientific progress. Second, among the harms of these systems is the compounding of those same global inequalities for reasons that are unrelated to the actual merits of contributions to knowledge. Attempts to incentivise scientific progress of the kind that have become popular in the last half-century can therefore be expected to worsen, rather than address, these problems. A third reason is that some preceding arguments could be used to continue, or expand, the marginalisation of peripheral researchers and communities – even as part of a notionally well-meaning response to the limitations and harms of incentives. Such marginalisation could be driven from the core, in response to recognition of the emergence of facsimile sciences in peripheral countries (itself partly as a response to metric-based incentives) within otherwise credible disciplines. It could also be driven from the periphery itself as a response to the realisation of the compounded inequities being caused by metric- and incentive-driven systems. In the former case, core academic communities classify peripheral researchers as engaged in facsimile science without regard to the merits of individual contributions. In the latter case, peripheral communities may decide to address the intellectually harmful and inequity-perpetuating imitative dynamics underlying facsimile sub-communities by ending intellectual engagement with the core. Each response could also precipitate, or exacerbate, the other.

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Some thoughts for South Africa

- ❑ Book was written with a global perspective in mind – nevertheless I do have some associated thoughts specific to RSA. A non-exhaustive list:
 - South African universities have made the error of chasing metrics and implementing managerialist systems instead of building institutions and cultivating desirable norms (rhetoric doesn't count)
 - At the national level: encouraged and compounded by the research incentive system
 - Decisionmakers in denial about mediocrity (and outright fraud), unwilling or unable to take difficult decisions, or/and have been prioritising their own interests/ambitions
 - Decolonisation and the ending of scientific dependence (Hountondi), required by other ambitions like 4IR, are fatally undermined by these dynamics
 - Notional achievements to date are likely to be fragile – reversal of metrics could happen rapidly, and of course that says nothing of what is not measured (quality of education)
 - Journals are largely functional cogs in the machine of producing output for appointments, performance assessments, promotions

On a positive note...

- ❑ South Africa does likely have a strong enough subset of academics, institutions, disciplines, journals, policymakers and enough resources to set itself on a better path
- ❑ Focus on building high quality local institutions, aware of global hierarchies and inequities, must nevertheless retain strong outward engagement

Thank you

Comments, questions and other feedback welcome: seanm@uj.ac.za

Book link: <https://link.springer.com/book/10.1007/978-3-030-84447-9>

Academy of Science of South Africa (ASSAf)

ASSAf Research Repository

<http://research.assaf.org.za/>

B. Academy of Science of South Africa (ASSAf) Events

I. Other

2022-11

Annual National Scholarly Editors' Forum (NSEF) Meeting

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