

Beyond Knowledge Transfer: Does the MEi:CogSci Conference Change How We Think?

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1 Introduction

Scientific conferences are often viewed as platforms for knowledge dissemination; however, in interdisciplinary contexts, they serve as "epistemic laboratories" for the social negotiation of meaning. We will conduct an empirical pilot investigation of the promised learning outcomes of the student conference in the Middle European interdisciplinary master's program in Cognitive Science (MEi:CogSci). The program's constructivist principles, especially as implemented in the "Integrative Kernel," aim to create *enabling spaces* (such as the student conference) where students are provided with *perturbations* to afford their development of *epistemic sovereignty* (Zimmermann et al., 2010). Epistemic sovereignty — operationalized across three aspects: sovereignty over premises, sovereignty in disciplinary switching, and sovereignty in epistemological questioning — is the capacity to reflect on one's own premises and realize the limits of one's own knowledge. This sovereignty serves as the internal foundation for *epistemic fluency* (Markauskaite and Goodyear, 2016), the broader ability to recognize and switch between diverse disciplinary paradigms.

2 Problem & Significance

While the MEi:CogSci curriculum is theoretically designed to foster epistemic fluency, these constructivist principles have not yet been empirically tested. This study is an exploratory empirical investigation of whether and how the conference functions as an enabling space for shifts in epistemic sovereignty — interpreted as indicators of epistemic fluency development — using a theory-driven interpretive case study design.

3 Methodology

Drawing from the Vienna MEi:CogSci cohort (minimum 15 participants), the study follows three phases: (1) a pre-conference workshop, (2) an in-conference reflective prompt, and (3) a post-conference reflective task. The workshop guides participants in constructing an anchor map of their research phenomenon, capturing conceptual, disciplinary, and affective-uncertainty dimensions of their current epistemic state, including explicitly marked nodes of uncertainty and unresolved friction in their research. The in-conference prompt captures participants' proximate experience of perturbation.

The post-conference task involves updating their map as well as a narrative reflection to capture changes in the students' understanding of their phenomenon. Analysis combines a structural audit of anchor map changes with a qualitative sovereignty audit of narrative reflections and conference abstracts, organized around the three aspects of epistemic sovereignty identified in the curriculum framework.

4 Expected Findings

We expect to find evidence of the conference as an enabling space for shifts in epistemic sovereignty, interpreted as indicators of epistemic fluency development. Specifically, we expect the degree of reported in-conference perturbation to correlate with observable changes in participants' anchor maps and to be reflected in sovereignty indicators in their narrative reflections.

5 Potential Contribution

This study will provide the first empirical evidence regarding the conference's effectiveness as an enabling space. If successful, this methodology will also serve as a scalable feedback tool for the program's administration. Its implementation would additionally contribute to students' learning process by affording sovereignty over their own scientific development. This study also serves as a first empirical operationalization of epistemic sovereignty as a measurable proxy for epistemic fluency development.

References

- Markauskaite, L. and Goodyear, P. (2016). Epistemic fluency and professional education. *Springer Dordrecht*.
- Zimmermann, E., Peschl, M. F. and Römmer-Nossek, B. (2010). Constructivist curriculum design for the interdisciplinary study programme mei:cogsci – a case study. *Constructivist Foundations*, 5(3):144–157.