

FRIAS Lunch Lecture series

Every other **Thursday** (beginning October 22) **between 12:15 and 1 p.m.** FRIAS Fellows offer 25-30 minute lectures on a specific topic for students and the university public, followed by 10-15 minutes of discussion. The lecture takes place during the lunch hour in the university's centre in the middle of town. This term's topic of the lecture is "Paradigm Shifts in Science".

Paradigm Shifts in Science

Winter term 2015/16

When: every other Thursday 12:15 to 1 p.m., beginning on 22 October

Where: Kollegiengebäude I (KG I – opposite the new university library),
ground floor, lecture hall 1015 (HS 1015)

A paradigm, according to the historian of science Thomas Kuhn, is a set of practices that defines a scientific discipline at any particular period of time. For him, a paradigm is not constituted primarily by theory, but defined by "universally recognized scientific achievements that, for a time, provide model problems and solutions for a community of practitioners" (*The Structure of Scientific Revolutions* 1962). This involves such key issues of scientific research as defining the object or problem of investigation, the questions to be asked, predictions to be tested, methods to be used, results to be interpreted, etc. Furthermore, according to Kuhn, all sciences have been, and continue to be, subject to fundamental changes and re-evaluations, resulting in paradigm shifts which may ultimately trigger scientific revolutions.

In the upcoming Lunch Lecture series, FRIAS Fellows from the humanities, the social sciences, and the natural and life sciences will address questions including the following: Which paradigm shift(s) has the relevant discipline experienced in the course of past 50 years? What was their nature, which basic assumptions did/do they challenge, which effects did/do they have? To what extent has technological progress, notably the digital revolution, contributed to that? Are paradigm shifts in the humanities and social sciences of a different nature than in the natural and life sciences? Can paradigm shifts involve scientific progress? To what extent can new paradigms incorporate elements of old paradigms? These and other questions will be addressed in 25-30 minute lectures followed by, on average, 10-15 minute discussions. Students from all disciplines are highly welcome.

PROGRAMME

Thursday		
22 Oct	Bernd Kortmann:	<i>Introduction/Paradigm Shifts</i>
	Peter Mühlhäusler:	<i>Paradigm Shifts in Linguistics</i>
05 Nov	Stefan Buhmann:	<i>Paradigm Shifts in Physics</i>
19 Nov	Benoît Dillet:	<i>The Ontological Turn in Contemporary Political Theory (1990-2015)</i>
03 Dec	Kate Rigby:	<i>Humanities beyond the Human: The Ecological Turn in Literary Studies</i>
17 Dec	Riccardo Leoncini:	<i>Paradigm Shifts in Economics</i>
21 Jan	Johanna Pink:	<i>From the study of Islam to the study of Muslims - paradigm shifts in Islamic studies</i>
04 Feb	Franz Brüggemeier:	<i>Paradigm Shifts in History</i>

Additional info you can find on: <https://www.frias.uni-freiburg.de/de/veranstaltungen/lunch-lectures>

22nd October 2015

Paradigm shifts in Linguistics

Peter Mühlhäusler

A significant but indeterminate number of approaches to linguistics have been labelled “paradigm” on the grounds of

- redefinition of the object of investigation
- new research questions
- new methods
- new terminology

Many of these claimed new paradigms have failed to attract a critical mass of scholars. Such instances of paradigm shifts that were successful owe their success to socio-historical contingencies rather than their being superior ways of capturing the nature of human language. Importantly, paradigm shift in linguistics is constrained by a body of Western metalinguistic beliefs, deeply entrenched metaphors of communication, and the expectations of the bodies funding, disseminating and benefiting from linguistic research.

A convenient survey of what the vast majority of linguists believe about language is given by Richard Hudson (1981) in “Some issues on which linguists can agree”.

5th November 2015

Paradigm Shifts in Physics

Stefan Buhmann

In his famous work "The Structure of Scientific Revolutions", the philosopher Thomas Kuhn tried to give a general account of how scientific knowledge develops (or possibly progresses?) over time. His central notion is the paradigm shift, which is a very radical change in the whole structure of a scientific discipline. Being a physicist by training, Kuhn's paradigm shifts were inspired by and modelled on physics and its two major revolutions of the time: The replacements of Newtonian physics by special and general relativity, and of classical mechanics by quantum mechanics, respectively. By understanding the conceptual changes associated with these revolutions in physics, we can therefore develop a deep intuition for Kuhn's concept of a paradigm shift in general. In other words: Physics is paradigmatic for Kuhn's paradigm shifts.

19th November 2015

The Ontological Turn in Contemporary Political Theory (1990-2015)

Benoît Dillet

The post-2008 global financial crisis, the 2011 Arab Spring, the Occupy movement and the 2013 Edward Snowden controversy have challenged traditional political theories and categories. Concepts such as the state, power and identity have become inadequate to think our present. We seem to lack new tools to account for these changes and to invent the future, especially in the age of the Anthropocene and the digital revolution. In this FRIAS lunch lecture, I want to briefly map out some of the main changes that have taken place in normative political theory and contemporary political theory in the last 25 years to situate the ‘ontological turn’ in the field. This ontological turn has allowed us to think, for instance, non-human agency beyond the nature/culture opposition, the artificial and human nexus, as well as the new regimes of truth found in re-organised neoliberal societies.

3rd December 2015

Humanities beyond the Human: The Ecological Turn in Literary Studies

Kate Rigby

Since the early 1990s, a major paradigm shift has been underway in literary studies, which commonly goes by the name of “ecocriticism”. In addition to the new questions it has brought to the field of literary studies, ecocriticism has also significantly reshaped its methodology. Whereas it has been common for literary scholars to draw upon other humanities or social science disciplines to inform their research, ecocritics turn also to the biological sciences, geology, physics, meteorology, science studies, and biosemiotics, repositioning literary history and hermeneutics within a more-than-human frame of reference. In this way, ecocriticism has contributed to the emergence of the burgeoning interdisciplinary field of the “environmental humanities”. Embracing also such game-changing sub-disciplines as ecophilosophy, ecolinguistics, environmental history, multi-species ethnography, and eco-religious studies, the environmental humanities brings fundamental questions of value and meaning, responsibility and rights, care and cruelty, compassion and justice to the major socio-ecological challenges facing the world today.

17th December 2015

Paradigm Shifts in Economics

Riccardo Leoncini

Adopting the notion of paradigm, I will try to identify and characterise a period in the last 50 years that could be characterised as a paradigm shift.

In the talk, I will start from the contribution of the Austrian economist J.A. Schumpeter, who at the beginning of the 20th century produced a thorough and radical revision of the mainstream, which went practically unnoticed at the time.

During the 1970s, his contribution was “rediscovered” and became the bulk of a new theoretical and methodological proposal. I will then give an account of the work of economists such as Richard Nelson, Sidney Winter, Chris Freeman and Keith Pavitt, who, in the wake of the Schumpeterian legacy, built and established the evolutionary approach to economics.

The talk will discuss the main characteristics of their contribution with respect to the mainstream, and will close with a discussion of the meaning and applicability of the term scientific revolution in economics.