

**Sydney-Tilburg Conference on
Reduction and the Special Sciences**



Tilburg, 10.04.2008 - 12.04.2008

Synopsis

Science presents us with a variety of accounts of the world. While some of these accounts posit a deeper theoretical structure and fundamental entities, others do not. But which of these accounts is the right one? How should science conceptualize the world? And what is the relation between the various accounts? Opinions on these issues diverge wildly in philosophy of science. At one extreme are reductionists who argue that higher-level theories should, in principle, be incorporated in or eliminated by the basic level theory. Higher-level theories do not ultimately exhibit conceptual integrity or provide genuine explanations. At the other extreme are pluralists who take higher levels of description and explanation seriously and argue for their independence and indispensability. Our goal in this conference is to bring together representatives from as many viewpoints as possible in order to advance our understanding of this problem. We invite case studies from the natural, social and behavioural sciences as well as discussions of philosophical models of intertheoretic relations.

Organizers: Stephan Hartmann (TiLPS), Maurice Schouten (Tilburg University)

Speakers

William Bechtel (University of California, San Diego), Craig Callender (University of California, San Diego), Paul Griffiths (University of Sydney), Kevin Hoover (Duke University), Philip Pettit (Princeton University)

Program

Thursday 10.04

09:00 - 09:30	Registration	
09:30 - 09:45	Welcome & introduction	
Plenary session 1		
	Room CZ9	
	Chair: Maurice Schouten	
09:45 - 11:00	Craig CALLENDER: <i>“Reduction, Laws, Kinds and All That”</i>	
	Coffee	
11:00 - 11:30		
Parallel session 1		
	Room CZ9	Room C186
	Chair: Paul Griffiths	Chair: Monica Meijsing
11:30 - 12:15	Peter MENZIES & Christian LIST: <i>“Non-Reductive Physicalism and the Limits of the Exclusion Principle”</i>	João FONSECA: <i>“On the Non-Elimination of Mental States by Adopting a Ruthless-Reductive Stance”</i>
12:00 - 13:00	Cynthia MACDONALD	Graham MACDONALD: <i>“Emergence in Mind”</i>
	Lunch	
13:00 - 14:00		
Parallel session 2		
	Room CZ9	Room C186
	Chair: Jos Uffink	Chair: Craig Callender
14:00 - 14:45	Mark COLYVAN: <i>“What’s Maths Got to Do with It?”</i>	Meinard KUHLMANN: <i>“Multiple Realizability of Structural Dynamical Patterns: From Ontology to Explanation”</i>
14:45 - 15:30	Russell MARCUS: <i>“Intrinsic Explanation and Field’s Disposabilist Strategy”</i>	Paul TELLER: <i>“Reduction, Mechanisms and Unification”</i>
15:30 - 16:00	Coffee	

Parallel session 3

16:00 - 16:45

Room CZ9

Chair: Stephan Hartmann

Jos UFFINK: *“Gibbs Paradox and the Relation between Thermodynamics and Quantum Theory”*

Room C186

Chair: Sebastian Lutz

Karola STOTZ: *“How (Not) to Be a Reductionist in a Complex Universe”*

Plenary session 2

16:45 - 18:00

Room CZ9

Kevin D. Hoover: *“Idealizing Reduction: The Microfoundations of Macroeconomics”*

Chair: Mark Colyvan

19:30

Lunch

Friday 11.04

Plenary session 3

09:00 - 10:15

Room CZ114

Chair: Katie Steele

Paul E. Griffiths: *“Reductive Explanation and Explanatory Force”*

Parallel session 4 Room CZ114

Chair: Robert Richardson

10:15 - 11:00

Panu RAATIKAINEN: *“Causation, Exclusion, and the Special Sciences”*

Room CZ8

Chair: Stephan Hartmann

Paco Calvo GARZÓN: *“Radical embodiment and Morphological Computation: Against the Autonomy of (Some) Special Sciences”*

Room C186

Chair: Paul Teller

Davide FASSIO & Massimiliano CARRARA: *“Reductionism and Perfectibility of Science”*

11:00 - 11:30

Coffee

Parallel session 5

	Room CZ114	Room CZ8
	Chair: Giovanni Valente	Chair: Kevin Hoover
11:30 - 12:15	Wolfgang PIETSCH: <i>“Two Electrodynamics between Plurality and Reduction”</i>	Jack VROMEN: <i>“Microfoundations in Strategic Management? Squaring Coleman’s Diagram”</i>
12:15 - 13:00	Douglas KUTACH: <i>“Causal Reduction”</i>	Rogier DE LANGHE: <i>“Pluralism in International Relations”</i>
13:00 - 14:00	Lunch	

Parallel session 6

	Room CZ114	Room CZ8	Room CZ 112
	Chair: Raymond Corbey	Chair: Cynthia Macdonald	Chair: William Bechtel
14:00 - 14:45	Robert RICHARDSON: <i>“Matters of Chance”</i>	Mariam THALOS: <i>“Nonreductive Physicalism: A New Formulation”</i>	Markus ERONEN: <i>“Reductionism, Explanatory Pluralism and Invariance”</i>
14:45 - 15:30	Ingo BRIGANDT: <i>“Beyond Reduction and Pluralism: An Epistemology of Explanatory Integration in Biology”</i>	Peter BOKULICH: <i>“The Constraints of Physicalism”</i>	Carsten GRIESEL: <i>“The Type-Token Distinction and the Mind and Brain Sciences”</i>
15:30 - 16:15	Stefano GIAIMO: <i>“Can We Reduce Homology Across The Biological Hierarchy?”</i>		Jordi FERNANDEZ & Suzanne BLISS: <i>“Reduction and the Layered Model”</i>
16:15 - 16:45		Coffee	
	Plenary session 4		
	Room CZ 8		
	Chair: Filip Buekens		
16:45 - 18:00	William BECHTEL: <i>“The Downs and Ups in Mechanistic Research: Research on Circadian Oscillators”</i>		

Saturday 12.04

Parallel session 7

	Room CZ6	Room CZ7
	Chair: Philip Pettit	Chair: Markus Werning
09:00 - 09:45	Frank HINDRIKS: <i>“The Location Problem in the Social Sciences”</i>	Sebastian LUTZ: <i>“Definability and Reducibility”</i>
09:45 - 10:30	Brian EPSTEIN: <i>“Economics and Nonsupervenience”</i>	Raphael VAN RIEL: <i>“Syntax, Model-Theory and the Problem of Explaining Reduction”</i>
10:30 - 11:00	Coffee	

Parallel session 8

	Room CZ6	Room CZ7
	Chair: Mariam Thalos	Chair: Stephan Hartmann
11:00 - 11:45	Jeroen DE RIDDER: <i>“In Defense of Program Explanation”</i>	Markus WERNING: <i>“From Topology to Logic ’ A Simulational Explanation of the Biological Basis of Thought”</i>

Plenary session 5

	Room CZ7
	Chair: Herman de Regt
11:45 - 13:00	Philip PETTIT: <i>“Physicalism without Pop-out”</i>

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