

**PHD THESIS SUMMARY:**

**Causal reasoning in economics: a selective exploration  
of semantic, epistemic and dynamical aspects**

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Many broad questions of high philosophical interest about causal reasoning in economics remain poorly answered. First, what are the meanings of causal claims? This is a semantic question. Second, how can a causal claim be adequately supported by evidence? This is an epistemological question. Third, how are causal beliefs affected by new information? This is a question about belief dynamics.

This thesis uses a combination of case-based research and conceptual analysis to address these questions.<sup>1</sup> The case study used throughout the thesis is economic research on the causes of unemployment. It is mainly by studying this scientific practice that I come to formulate and defend answers to the three questions stated above. I do not claim that these answers are universal—they most probably do not apply to all instances of causal reasoning. But they do contribute to a better understanding of causal reasoning in economics and beyond.

In part I, the semantic part (co-written with Luis Mireles-Flores), we investigate the meaning of causal generalizations in the economics of unemployment. We argue that the standard approach to meaning is misguided in identifying the referential relation as being what constitutes meaning. To make sense of the widespread practice of demanding and supplying causal generalizations in disciplines like economics, we need an approach to meaning which prioritizes the *inferential* relation over the *referential* relation. We contribute to the development of this alternative approach to meaning by distinguishing different types of inferential relations which together constitute the meaning of an expression.

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<sup>1</sup> The thesis can be accessed online at: <http://repub.eur.nl/pub/38242>.

In part II, the epistemological part, I argue that justification in sciences like economics often relies, and ought to rely, on evidential variety—i.e., the combination of evidence from multiple sources. Recognizing the importance of evidential variety is crucial to move the methodological debate away from single-source assessment. This part, the lengthiest of my thesis, is made up of three chapters. In chapter 2 (also published as Claveau 2011), I argue that a lively debate in contemporary econometrics between the design-based and the structural approaches suffers from a bias toward single-source assessment. In chapter 3 (also published as Claveau 2012), I turn to a debate in philosophy of science surrounding what is known as the Russo-Williamson thesis. I maintain that Russo and Williamson (2007) are wrong to read the quest by scientific researchers for both difference-making and mechanistic evidence as being incompatible with standard monist accounts of causality. I argue instead that this quest is simply an epistemic strategy for generating evidential variety, with no implications for the semantics or metaphysics of causality. In chapter 4 (separately published as Claveau 2013), I use a Bayesian model to investigate the truth of the variety-of-evidence thesis. The variety-of-evidence thesis states that, *ceteris paribus*, the strength of the confirmation of a hypothesis by an evidential set increases with the diversity of the evidential elements in that set. Modifying a model by Bovens and Hartmann (2002; 2003), I find that, although the variety-of-evidence thesis is a good guide in typical circumstances, it is false in extreme circumstances (i.e., when evidential sources are most likely unreliable).

In part III, the part on belief dynamics, I study deviant-case research. A case is deviant when it does not behave as expected. The behaviour of the German unemployment rate following the 2008 financial crisis is such a deviant case. Deviant cases have received various labels in post-positivist philosophy of science—e.g., ‘falsifiers’ and ‘anomalies’. In chapter 5, I argue that an influential view of science called by Cartwright (1999, 184) the “‘vending machine’ view” gives an unhelpful picture of deviant-case research in sciences like economics. The core of the problem is that expectations in these sciences are not the result of deductions from believed premises. I flesh out an alternative picture of deviant-case research in sciences that I call ‘eclectic’. These sciences are characterized by variety and combination; they are not structured around a monolithic theory.

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**François Claveau** did his PhD research at the Erasmus Institute for Philosophy and Economics (EIPE) and obtained his PhD *cum laude* in December 2012 from the Erasmus University Rotterdam (Netherlands), under the supervision of Prof. Kevin Hoover (Duke University), Prof. Julian Reiss (Durham University), and Prof. Jack Vromen (Erasmus University). He is currently a postdoctoral researcher at the Centre interuniversitaire de recherche sur la science et la technologie (CIRST) at the Université du Québec à Montréal (UQÀM). He is also editor of the *Erasmus Journal for Philosophy and Economics* (EJPE). He would like to thank EIPE, Nuffic, and SSHRC for their financial support.  
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