

# Intuitive Economics: On the Role of Power and Knowledge in Post-Crisis Economics<sup>☆</sup>

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## Abstract

The recent financial crisis has re-launched a debate over the epistemological nature of economics that displays many of the hallmarks of a much older, prominent quarrel: The *Methodenstreit der Nationalökonomie*, originating in methodological differences between the Austrian School of Economics and the German Historical School in the 1880s. This paper adds to the ongoing discussion on the epistemological direction of post-crisis economics by putting it into context with the *Methodenstreit* and the marginalised treatment of power and knowledge in the formalistic, deductivist modes of analysis that characterise modern-day economics. I reexamine Edgar Salin's concept of *Anschauliche Theorie* (intuitive theory) as a power- and knowledge-augmented counterbalance to the abstract technique of orthodox economics and argue that a recasting of these ideas as a central pillar for methodological reform plays a pivotal role in developing a new vision in contemporary economic theory.

*Keywords:* Reform of economics, Methodenstreit, epistemology, power, knowledge, critical theory

*JEL Classification:* A12, B13, B15, B25, B40, B50

*Running header:* Intuitive Economics

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## 1. Introduction

For most of the post-war half century, the dialogue between qualitative and quantitative discourses in the social sciences has been marred by an increasingly embittered dispute over methodology. Despite the

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<sup>☆</sup>A prior version of this paper was circulated under the title "Intuitive Economics: The Role of Power and Knowledge in the Dismal Science". I am indebted to Stephan Bieri for introducing me to Edgar Salin's work. I thank Patricia Mooney Nickel and Peter Schaeffer for lively discussions, insights and suggestions that much improved earlier drafts. Inputs from participants at the 2007 annual meetings of the Society for the Advancement of Socio-Economics are also gratefully acknowledged. The usual disclaimers apply, and all errors, misinterpretations and speculations are the sole responsibility of the author.

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4 mutual quest for a unifying science, this row has both deepened cross-disciplinary divides and created  
5 gaping rifts within disciplines. It has also profoundly shaped the intellectual trajectories of emerging new  
6 sub-disciplines, such as international relations (Finnegan, 1972) or economic geography (Scott, 2000). For  
7 many fields in social science, including economics, the immediate post-World War II period marked a time  
8 of metamorphosis and departure from disciplinary orthodoxy – a trend that was particularly backed by  
9 emerging quantitative methods. Across the board, proponents of quantitative social science methodology  
10 increasingly likened themselves to their natural science counterparts, whereas qualitative methods came to  
11 be the last bastion of “true” social scientists. By the turn of the millennium, C.P. Snow’s “Two Cultures”  
12 had become entrenched in outright “science wars” that rendered “qualitative analysis” and “quantitative  
13 methods” almost mutually exclusive concepts. With no truce in sight, the stakes for both sides are high as  
14 defeat amounts to nothing short of the respective method of inquiry losing its disciplinary relevance.<sup>1</sup>

15 The recent financial crisis has drawn renewed attention to the epistemological fault lines of this dis-  
16 pute: The momentous dislocations in the global financial system were not only deemed prime evidence  
17 for the failure of modern varieties of capitalism, but they also represented a damning indictment for the  
18 science behind it. Among the most perplexing puzzles of the crisis is the fact that neither policy makers,  
19 market participants nor experts anticipated its historic scope. Given the plethora of safeguards, a collapse  
20 of the global financial system seemed unthinkable. Yet still, “how could this happen?” lamented the Bank  
21 for International Settlements (BIS) – the world’s oldest international financial institution and global think  
22 tank for monetary policy makers – in its 2009 annual report (BIS, 2009). In a recent reply to HRH Queen  
23 Elizabeth’s question as to why so few of their guild had foreseen the credit crunch, ten prominent British  
24 economists publicly disagreed with the official response from the British Academy (Besley and Hennessy,  
25 2009); rather than a simple combination of wishful thinking and hubris by experts and market participants  
26 alike, their dissent puts the blame squarely on the (epistemological) training of economists which had pro-  
27 duced “a generation with too many *idiots savants* skilled in technique but innocent of real economic issues”  
28 (Hodgson, Dow, Earl, Foster, Harcourt, Metcalfe, Ormerod, Rosewell, Sawyer, and Tylecote, 2009, p.2, ital-  
29 ics in the original). Indeed, “the preference for mathematical technique over real-world substance diverted  
30 many economists from looking at the vital whole, [failing] to reflect upon the drive to specialise in narrow  
31 areas of enquiry, to the detriment of any synthetic vision” (*Ibid.*, p.2). In a similarly public disagreement,  
32 German economists at home and abroad have been polarised over the methodological school of thought that

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<sup>1</sup>See for example Flyvbjerg’s (2001) *Making Social Science Matter* for a more general exposition of the “science wars”.

33 should prevail in the economics curricula at German universities.<sup>2</sup>

34 This paper adds to an ongoing discussion on the methodological direction of economics in *this Journal*.  
35 Forestalling the uncertainty that has taken hold in post-crisis economic thought and practice, [Dow \(1997\)](#)  
36 identifies a “denial of the value of methodological discussion” – and the subsequent gulf between professed  
37 methodology and practised methodology – as the most imminent risk to the future of mainstream economics.  
38 Recent contributions by [Hodgson \(2009\)](#) and [Lawson \(2009\)](#) articulate the need for methodological reform  
39 and outline transformative antidotes to the formalistic, deductivist modes of analysis that have come to  
40 dominate modern academic economics. Post-crisis epistemological reform ought to be even more ambitious  
41 than the influential critique of [Colander, Goldberg, Haas, Kirman, Juselius, Sloth, and Lux \(2010\)](#) whose  
42 proposed alternatives advocate “more realistic specifications” of standard models. Here, I evaluate the  
43 current crisis of (academic) economics through the prisms of historical and interdisciplinary, heterodox  
44 perspectives. Specifically, I argue that these latest disputes over the epistemological nature of economics –  
45 with their parallels in contemporary social science inquiry – display many of the hallmarks of a much older,  
46 prominent quarrel: The *Methodenstreit der Nationalökonomie*. Pitting the Austrian School of Economics  
47 against the German Historical School in the 1880s, this strife over methods has largely remained unresolved  
48 despite several attempts to overcome it. Yet, curiously, these efforts seem overlooked and outside of the  
49 current battlefield of the science wars, where much of the debate is shaped by contemporary political theory.  
50 While critical theory, poststructuralism, and postmodernism have left distinct marks elsewhere in the social  
51 sciences, mainstream economic theory proved largely impervious to similar developments.<sup>3</sup>

52 In this context, the marginalised treatment of the concepts of power and knowledge is particularly  
53 surprising if one considers that Bertrand Russell extensively argued that “power to social science is like  
54 energy to physics as far as fundamental concepts go” ([Russell, 1938](#), p.ix). Such awareness for an integrated  
55 methodological treatment – even among the staunchest supporters of the Comtian project of social physics  
56 – faded promptly in the postwar years as the neoclassical synthesis banished broader notions of power and  
57 knowledge from the orthodox mainstream of economic analysis. Despite being compared to Einstein for his  
58 “far-reaching generalization under which Newton’s results can be subsumed as a special case” ([Pigou, 1936](#),

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<sup>2</sup>The origins of this debate lie in the proposed radical re-orientation of the economics department at the University of Cologne in 2009, moving the ideological stance from its ordoliberal heritage to quantitative macroeconomics of a more Anglo-American flavour. Rüdiger Bachmann at the University of Michigan keeps a comprehensive archive of recent contributions to this dispute in Germany and to the broader debate on economic methodology on [his website](#).

<sup>3</sup>The “postmodern turn” in economics during the 1980s is a notable exception which I address in more detail in section 3 below. More recently, [Kaul’s \(2002\)](#) proposal for contextualised theories and methodological pluralism in economics initiates a dialogue in this direction.

59 p.3), John Maynard Keynes insisted that economics is essentially a moral science. Indeed, he famously  
60 took issue with Lionel Robbins' call for a complete separation of ethics and economics (Atkinson, 2009).  
61 Today, such considerations have largely disappeared from the mainstream; economics is deemed to have  
62 become as predictive of human action as physics is of nature. Prominent economists deliberate whether their  
63 discipline is closer to the practical problem solving in engineering or to the development of analytic tools  
64 and establishment of theoretical principles in the (natural) sciences (e.g. Mankiw, 2006; Bernanke, 2010).  
65 Undeniably, the social engineering aspirations of economics – shaping reality in its own neoclassical image  
66 and then reconstructing economic reality so as to fit these assumptions – have never been higher (Santos  
67 and Rodrigues, 2009). To a large extent, then, contemporary economics is characterised by a dominance  
68 of technique over substance, a development that has given rise to a number of prominent warnings over the  
69 last 20 years or so (Hodgson, 2009).

70 Revisiting Edgar Salin's concept of *Anschauliche Theorie* (intuitive theory) and putting it into context  
71 with power and knowledge serves as my central point of departure in the current debate. Indeed, I hope that  
72 a recasting of these ideas in the form of "intuitive economics" might constitute a central element within the  
73 larger project of rethinking methods in economics, aimed at overcoming the lack of vision in contempo-  
74 rary economic theory. To dispel possible ambiguities due to parallels in their genealogical origins upfront:  
75 "Intuitive economics" is not economic sociology – or socio-economics in the sense of Etzioni (1986) or  
76 Swedberg (1990) – simply by another name.<sup>4</sup> Instead, it is the proposal for a consistent conceptual frame-  
77 work that combines Salin's legacy of a historical and institutional understanding of the political economy  
78 with the analytical rigour of modern economics. The much coveted prize for this challenging venture has  
79 many dimensions; most pressingly, it would provide the grounds for a truce in the science wars. Beyond  
80 this, it would free economics from its current obsession with method and re-focus policy debates around  
81 more pressing questions which define the current post-crisis environment. The challenge for "intuitive  
82 economists" is to rediscover some of the utopian vision shared by the great economic thinkers. As Golda  
83 Meir is famously quoted, "an economist who is no utopist is no good economist" (Salin, 1965, p.227).

84 The remainder of this paper is organised as follows. Section 2 looks at the *Methodenstreit der Na-*  
85 *tionalökonomie* as the original science war and outlines attempts to resolve the debate, revealing the first  
86 tendencies in economics to abstract from the contextual forces of power and knowledge . Section 3 looks  
87 at how a wedge between orthodox theory and reality has lead to repeated crises in economic inquiry. Sec-

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<sup>4</sup>I share Hodgson's (2008) scepticism regarding the viability of socio-economics as a (post-crisis) alternative with sufficiently clearly delineated intellectual boundaries and a well-defined theoretical agenda.

88 tions 4 and 5 examine the limited treatment of power and knowledge in modern-day economic theory. A  
89 discussion of the contemporary relevance of Salin’s intuitive theory provides the starting point for section 6  
90 which also outlines the possible elements of a synthesis for a new vision in economic theory. Section 7 con-  
91 cludes with some tentative reflections on new directions for carrying economic thought beyond the science  
92 wars.

## 93 2. Methodenstreit der Nationalökonomie

94 A *Methodenstreit*, the dispute over methods between different schools of thought, is not unique to mod-  
95 ern science and can at least be traced back to epistemological differences between Plato and Aristotle. In the  
96 context of the post-Enlightenment project of social science inquiry, however, the *Methodenstreit* between  
97 the German Historical School and the Austrian School of Economics seems important for at least two rea-  
98 sons. First, the *Methodenstreit* was instrumental in delineating the intellectual division of labour between  
99 economics and sociology, an intellectual legacy that still shapes important aspects of the boundaries between  
100 the two disciplines today. Recent important changes in the relationship between contemporary economics  
101 and sociology, such as the emergence of “new economic sociology”, are rooted in the *Methodenstreit* (In-  
102 gham, 1996). Second, the *Methodenstreit* represents a unique epoch of pluralist thinking in the history of  
103 economic thought. Its explicitly epistemic character is perhaps what most distinctively puts it in contrast to  
104 other generally accepted periods of pluralism in economics.<sup>5</sup> As this dispute lasted over three generations  
105 from the late nineteenth to the early twentieth century, it was profoundly shaped by global political develop-  
106 ments over the course of the last century, eventually abruptly halted by the Great Depression and forgotten  
107 or no longer deemed relevant during the golden years that followed World War II. As the interwar period  
108 of intellectual pluralism gave way to the dominant postwar canon, the Cambridge Capital Controversy – in  
109 many ways a direct descendent of the *Methodenstreit* – first adumbrated the epistemological problems at the  
110 core of the current debate: it identified “sloppy habits of thought that are handed on from one generation to  
111 the next.” (Robinson, 1953, p.81), arguably culminating in the failings of current academic research prac-  
112 tices in economics. As many of the old, methodological fault lines are featuring prominently in the current

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<sup>5</sup>In addition to the *Methodenstreit*, Davis (2008) identifies the following periods of pluralism in the history of economic thought: the transition from classical to neoclassical economics in nineteenth-century Britain; the heterodoxy of labour and monetary economics in post-Marshall Cambridge; the interwar competition in the USA between institutional and neoclassical economics; and the 1970s debate between proponents of monetary and fiscal policy in the IS-LM framework. I would argue the case for adding the Cambridge Capital Controversy that raged from the mid-1950s to the mid-1970s as a separate episode to that list.

113 crisis, it seems appropriate to return to a brief description of the original *Methodenstreit* and to contemplate  
114 its present-day relevance for similar developments in social science.<sup>6</sup>

## 115 2.A. *The Original Science War*

116 In 1871, not even five years after the first volume of Karl Marx's grand œuvre was published, Carl  
117 Menger presented his own interpretation of the political economy, *Principles of Economics*, which would  
118 become the intellectual foundations of the Austrian School of Economics. However, it was not until 1883,  
119 when the publication of his *Investigations into the Method of the Social Sciences with Special Reference to*  
120 *Economics* (Menger, 1883 [1985]), prompted a response from the German Historical School in Gustav von  
121 Schmoller's (1883) *Methodology*, thus marking the beginning of an intense academic debate that should  
122 last for several decades. The Historical School contended that – in a similar vein to Marx's historical  
123 materialism – there was a distinct difference between the fundamental character of natural phenomena and  
124 that of cultural phenomena, the latter of which could only be understood through the interaction of historical  
125 processes. Accordingly, economics could contribute to the understanding of human action only through  
126 the study of regularities derived from a historical context – an epistemological stance that lives on across  
127 disciplines, from institutional economics to the Foucaultian method of genealogy (Foucault, 1995). The  
128 Austrian School by contrast believed that economics would derive from a basic logical principle and – as  
129 socio-economic and political interaction were far too complex to be understood by simple inductive means  
130 – a key role of economics would be to develop universally valid theories of human action via deductive  
131 methods.

132 While both schools shared the vision for a universal theory of all social phenomena, the Austrian School  
133 – like many of its Anglo-Saxon contemporaries – saw a distinct separation between an economic and a  
134 non-economic sphere of human action. The Historical School, on the other hand, strongly emphasised  
135 the interdependencies between economic and political developments, deeming it impossible to deduce the  
136 complexities of social activities from a single unifying axiom. On a different level, these positions also  
137 represented opposite ends on the spectrum of varieties of capitalism, with the classical liberalist convic-  
138 tion of the Austrian School at one end, and the vision of interventionist or welfare-state capitalism by  
139 the Historical School at the other end. In due course, the *Methodenstreit* would engage thinkers such as

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<sup>6</sup>For a comprehensive historiographical account of the *Methodenstreit*, see Bostaph (1978); for a non-traditional interpretation of the origins of the dispute, see Anderson, Ekelund, and Tollison (1992). After the Civil War, returning German-trained American economists clashed with traditionalists in what became an American version of the *Methodenstreit* (Mongioli, 1988).

140 Eugen von Böhm-Bahwerk and Ludwig von Mises for the Austrian School and Max Weber and Werner  
141 Sombart for the Historical School. Joseph Schumpeter’s affinities with the Historical School have been  
142 inadequately acknowledged (Michaelides and Milios, 2009), but they remain – in the form of evolutionary  
143 or neo-Schumpeterian economics – perhaps the most significant trace of an intellectual legacy of the His-  
144 torical School in contemporary economic thought. One of the most well-documented attempts to overcome  
145 the *Methodenstreit* is Max Weber’s (1927 [1949]) synthesis of the neoclassical and the historical approach,  
146 a project that he termed “Sozialökonomik” (socioeconomics). He rejected both the descriptive approach of  
147 the Historical School and the highly abstract representation of universal phenomena by suggesting hypo-  
148 thetical “ideal types”, intended only serve as heuristic aids for the purpose of understanding a specific case  
149 at hand.<sup>7</sup>

150 By the late 1930s however – with the original dispute far from being resolved – the uncomfortable  
151 association of key thinkers of the Historical School with the Nazi regime and Anglo-Saxon intellectual  
152 developments that culminated in Keynes’ *General Theory* (1936) brought the original *Methodenstreit* to a  
153 premature end.<sup>8</sup> As a consequence – in no small part influenced by Schumpeter’s (1954 [1996]) widely-  
154 shared assessment of the *Methodenstreit* as an “episode of wasted energies” – later attempts would no  
155 longer enjoy the prominence of earlier ventures to settle the dispute. This includes proposals by Walter Eu-  
156 cken (1950) and Edgar Salin (1944). Eucken’s proposal was grounded in a structural understanding of the  
157 economy as a system that combines the notion of a natural order of things with that of human action. In con-  
158 trast to both Weber and Eucken, Salin’s proposal identified the increasing mathematical abstraction and the  
159 search for universal principles as the underlying causes of epistemological problems in economics, perhaps  
160 anticipating concerns that are central to the current debate. Their ideological differences notwithstanding,  
161 both the Historical School and the Austrian School were united in their mutual criticism of increasing “sci-  
162 entism” – the inappropriate transfer of methods from the natural to the social sciences, or to use Hayek’s  
163 (1942) phrase, the “slavish imitation of the language of science” – in economics. In this sense, I argue that  
164 a new synthesis of the positions in the original *Methodenstreit* present viable alternatives to the objectivist  
165 mathematical formalism of the neoclassical paradigm that has dominated the postwar era.<sup>9</sup>

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<sup>7</sup>Weber’s construct of ideal types is frequently interpreted as the positivistic postulate to establish such types, particularly in an institutional context. This might indeed be a misinterpretation of Weber’s *Idealtypen* which were simply intended as temporary assumptions for analysing specific phenomena. See Swedberg (1999) for a concise overview of this debate.

<sup>8</sup>Sombart’s attempt to advise the National Socialists in 1934 had particularly detrimental effects for the credibility of the Historical School. Although the party officials rejected his suggestions with deprecating remarks, this tarnished much of his intellectual legacy (Scheffold, 2002).

<sup>9</sup>With the collapse of the Historical School, Austrian economists – led by von Mises and Hayek – redefined their method-

166 2.B. Modern Science Wars

167 The significant political crises of the previous century had profound impacts on the conduct of social  
168 science, yet their discipline-specific manifestations varied significantly across research agendas in sociol-  
169 ogy, political science and economics. While the spectre of fascism and state capitalism inspired a genera-  
170 tion of critical social theorists associated with the Institut für Sozialforschung in Frankfurt (the “Frankfurt  
171 School”), economic theorising during the interwar years grew comparatively void of political questions. By  
172 the middle of the twentieth century, mainstream economic theory had become largely apolitical and ahis-  
173 torical in terms of the questions it addressed and resembled more closely the natural sciences, displaying a  
174 large degree of mathematisation. During the stability of the 1950s both economics and the philosophy of  
175 science moved from having a variety of competing approaches and research strategies to having a single,  
176 almost unanimously accepted mainstream or standard view (Hands, 2007). After a period of relative plural-  
177 ism, postwar economics entered a stage of orthodoxy that transformed neoclassicism into a single dominant  
178 approach.<sup>10</sup> With capital instantly and costlessly malleable, history was no longer deemed a relevant factor.  
179 Instead, the focus on modelling methods and technique became the defining characteristic of the formalistic  
180 mainstream in economics (Niehans, 1990). Yet, historically neither pluralism nor dominance appear to be  
181 a permanent state of affairs and each is ultimately replaced by the opposite paradigm (Davis, 2008). While  
182 prospects for the emergence of a new orthodoxy capable of replacing the deductivist-modelling approach of  
183 modern economics appeared unlikely prior to the financial crisis, the recent failings of academic economics  
184 might provide sufficient momentum for epistemological change that re-aligns the academic mainstream with  
185 its potential audience. If notions of power and non-technological knowledge remain absent from theoretical  
186 discourses of contemporary orthodoxy, economics risks that it will remain a discipline that “forgets most of  
187 what it once knew and allows itself to be continually distracted, confused, and in denial” (DeLong, 2011,  
188 p.2), pushing it perilously close to the brink of irrelevance.

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ological stance and commenced a second version of the *Methodenstreit* against the emerging neoclassical synthesis with regard to macroeconomics. The Austrian position on capital eventually gave rise to the Cambridge Controversy. I do not argue in favour of the modern Austrian paradigm in the narrow sense of a *Methodenstreit* that is still ongoing today (Huerta de Soto, 1998). Rather, I see merit in analysing the current crisis through the prism of earlier efforts to resolve the dispute over epistemological methods in economics during the original *Methodenstreit*.

<sup>10</sup>Blaug (1998) suggests that this post-war transformation of neoclassical economics calls for a new label. However, I am not convinced that Colander’s (2000) suggestion of “New Millennium Economics” is quite appropriate in the context of this article. At least in keeping with Aspromourgos (1986), I henceforth try to minimise the common usage of the term neoclassical to juxtapose modern mainstream economics with heterodox economic thought.



### 189 3. The Third Crisis of Economic Theory?

190 Prevailing economic orthodoxy, it seems, is characterized by a “clearly discernible historical ebb and  
191 flow that coincides with the so-called long waves of economic history” wherein eras of prosperity and  
192 rapid growth alternate with periods of slow growth and instability (Crotty, 1980). The beginning of post-  
193 Keynesian era four decades ago was labelled by Joan Robinson as the “second crisis of economic theory”  
194 on the grounds that it shared one central feature with the first crisis which was triggered by the Great De-  
195 pression some forty years earlier: It had nothing to say on “the subject which above all others occupies the  
196 minds of the people whom economics is supposed to enlighten” (Robinson, 1972, p.9). During both crises  
197 of economic thought, the orthodox mainstream had forgotten what the questions relevant to the period were.  
198 Instead of consistent and accepted answers to contemporary questions, both episodes saw a proliferation of  
199 academic economic theorising that was very little illuminated by the ideas that had emerged at the time  
200 (Robinson, 1977). By that measure – another forty years since the second crisis – the ideological disloca-  
201 tions of the Great Recession are carrying all the Robinsonian hallmarks to be considered a third crisis of  
202 economic theory: Neither the linkages between globalised financial markets, regulatory arbitrage and Min-  
203 skyan financial instability (e.g. Bieri, 2009, 2010), nor the macroeconomic consequences of financialisation  
204 (e.g. Krippner, 2005; Skott and Ryoo, 2008) can be considered part of orthodox opinion.

#### 205 3.A. *Epistemological Problems of Economics*

206 The neoclassical synthesis had yielded what Joan Robinson called “bastard Keynesianism” and saw a  
207 return to the natural-law tradition of scarcity-based neoclassical models, firmly anchored in methodologi-  
208 cal individualism. This radical departure from an institutionally-grounded understanding of the economy  
209 introduced a grand narrative that eventually generated its own antithesis in the “postmodern turn” in eco-  
210 nomics (Milberg, 1993). By the 1980s, a polyphonous group of postmodern economists began to question  
211 the objectivity of economics on the basis of its rhetoric and the discourse of economics analysis, but also on  
212 the basis of the history of that discourse itself. Both verbally and mathematically, the disciplined conversa-  
213 tions of mainstream economic rhetoric grounded the ideas of the dismal science in natural law (McCloskey,  
214 1983). Over the past three decades, the performativity of economics has been promoting a particular ver-  
215 sion of disciplinary imperialism that goes beyond the mere export of its concepts to territories traditionally  
216 occupied by disciplines other than economics (Hirschleifer, 1985; Santos, 2011); it injects economic calcu-  
217 lus into human deliberation and introduces market-like forms of social interaction beyond the (contested)  
218 physics analogies of the early Marginalists (Hollander, 1989).

219 Early aspects of the problem of scientism in economics – in particular with regard to the appropriate re-  
220 lationship between qualitative and quantitative analysis – are of course central to the *Methodenstreit*. Above  
221 all, this is exemplified by von Mises' (1976) argument that, in distinct contrast to the natural sciences, social  
222 sciences are characterised by a rather unique logical and epistemological nature. The Austrian view of eco-  
223 nomics as a theoretical social science thus implies that it can impart no knowledge other than qualitative,  
224 because it is neither based on (historical) observation nor on any other information that can be gathered  
225 through the methods predominant in the natural sciences. The Misesian epistemology is perhaps best contex-  
226 tualised as a response to Mitchell's (1925) AEA Presidential address that calls for establishing economics  
227 as a quantitative science. Its ahistoric position, however, runs counter to the main argument of this paper  
228 as I will expand further in the following sections. Nonetheless, contemporary economists might do well to  
229 recall that

230 “[t]hose theorists who are usually designated as the great masters of mathematical economics  
231 accomplished what they did without mathematics. Only afterwards did they seek to present  
232 their ideas in mathematical form. Thus far, the use of mathematical formulations in economics  
233 has done more harm than good” (von Mises, 1976, chap.8).

234 All of these episodes of disciplinary upheaval – past and present – have at their origins the positivist  
235 tradition of science, “its proselytic obsession with method” (Heilbroner and Milberg, 2002), and the search  
236 for absolute truth. Perhaps as an inevitable consequence, economic theory is, as is most theory in social sci-  
237 ence, laden with ideology. Milberg (1988) shows how the language used in contemporary economic theory  
238 has been producing and reproducing this ideology. During the quantitative revolution of the postwar era,  
239 social science methodology had become ontology through a process of basing itself on scientific concepts  
240 that are assumed to “exist outside the text” and that are used to portray cause-and-effect of human inter-  
241 action in a scientific fashion. Method has by and large erased all authorial presence in economic writing.  
242 It has itself become the main text. Faced with disciplines that have a penchant for largely being devoid of  
243 deliberate authorial choices, and that have been trapped in the “positivistic language games” of academic  
244 career building, contemporary scientific social science writing is incapable of solving any intellectual prob-  
245 lems using the brute force of technique (Agger, 1989). But until the onset of the recent financial crisis,  
246 little epistemic discourse in economics has taken place in the public sphere. Instead it manifested itself as  
247 “secret writing” in the iterative and disciplinary culture of peer-reviewed journals. The “private language”  
248 of contemporary economists is replete with highly charged rhetoric which – by creating the illusions of

249 front-line involvement – serves as a “permanent substitute for experience” (Brittan, 1983). The increasing  
250 disconnect between economic theory and socio-economic reality of the “public sphere” constitutes the real  
251 crisis of vision in post-crisis economics. Indeed,

252 “[t]he mark of modern-day economics is its extraordinary indifference to this problem. At its  
253 peak, the high theorizing of the present period attains a degree of unreality that can be matched  
254 only by medieval scholasticism.” (Heilbroner and Milberg, 1995, p.4)

255 The challenge is thus to rekindle economic debates that are not confined to the ivory towers of academia,  
256 but debates that are derived from “lifeworld grounded critical theory” (Agger, 2006). While the first crisis  
257 gave birth to Keynesianism, the post-Keynesian crisis reconstituted the relationship between micro- and  
258 macroeconomic theory and definitions of rationality and optimisation (Bell and Kristol, 1981). The current  
259 fashion of economic analysis suffers from the scientific illusion which stands opposed to much needed  
260 pragmatic, empirical work (Summers, 1991).

261 At the heart of the third crisis in economics, then, is the scientism of representative agent models that  
262 are incapable of addressing the complexities of macroeconomic aggregates. The mathematical involvedness  
263 of ubiquitous DSGE models – not to their analytical sophistication – epitomises the nature of this version of  
264 scientism in modern macroeconomic best practice; it is reminiscent the deterministic paradigm of classical  
265 physics, rather than the multiverse interpretation of quantum mechanics. The failure of modern macroeco-  
266 nomics to recognise that fundamentally complex systems cannot (and should not) be formally modelled has  
267 led to an inappropriate combination of fundamental science and policy making (Colander, Howitt, Kirman,  
268 Leijonhufvud, and Mehrling, 2008). I agree with Colander’s (2011) recent assessment that policy should  
269 not directly follow from models, but that “it follows from reasoned analysis [...] which combines mod-  
270 els with institutional *knowledge, intuition, and common sense*”. Because of the intrinsically endogenous  
271 relationship between policy and the modelling process itself – so elegantly side-stepped by the assump-  
272 tion of rational expectations – economic analysis must re-embrace the disciplinary treatment of *power* and  
273 *knowledge* beyond traditional disciplinary boundaries.<sup>11</sup>

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<sup>11</sup>While the original *Methodenstreit* has certainly contributed to the fact that the treatment of power and knowledge marks a fundamental dividing line between the two disciplines, prominent sociologists such as Talcott Parsons have also cemented this segregation by insisting that institutions, being the embodiments of values, were the proper subject of sociology rather than economics. Velthuis (1999) documents Parsons’ objection that institutional economics had a misconceived view on the scope of economics. According to Parsons, institutions as the embodiments of values were the proper subject of sociology rather than economics. This division of labour between economics and sociology – legitimised by Parsons – has shaped much of the interaction between the two disciplines.

### 274 3.B. Power and Knowledge

275 The relationship between epistemology and power is one of the most significant problems in contem-  
276 porary social sciences theory. For much of the previous century, the commonly accepted modes of social  
277 science inquiry – separating “power” and “knowledge” (*epistêmê* or *technê*)<sup>12</sup> – have been the central sub-  
278 ject of attack by the highly abstract writings of critical theorists of the Frankfurt School. In the context of the  
279 previous discussion, the relationship between *epistêmê* and *technê* in Greek philosophy offers an interesting  
280 insight with regard to the appropriate interaction between theory (pure knowledge, i.e. the fundamental  
281 science of macroeconomics) and experience-based practice (i.e. policy).

282 Like in critical social theory, a reintegration of power and knowledge into the framework of economic  
283 analysis could help to close that very gap between theory and reality – a gap that is largely attributable  
284 to de-politicising and de-historicising of economic thought. The artificial separation between power and  
285 knowledge, between politics and history and – in Lyotard’s (1984) sense – between justice and truth is  
286 widely recognised elsewhere in contemporary political and social science. At least since Foucault’s (1980)  
287 famous contention that “power produces knowledge” and vice versa, the two concepts have become in-  
288 extricably linked. With this disclaimer and for ease of analysis, however, I will proceed by engaging in  
289 a separate treatment of their respective roles in an economic setting. Indeed, O’Neill (1986) argues that  
290 Foucault’s work may be read as a continuation of Weber’s analysis of the bureaucratic organisation and  
291 discipline of the state and the economy, since both share an interest in depoliticising the perception of their  
292 power by subordinating them to the neutral image of disciplined knowledge and technology.

## 293 4. Economics and Power

294 As mainstream economics has turned its back on political discourses, power relations have become  
295 the blind-spot of economic theory.<sup>13</sup> Contemporary economic theory makes narrow assumptions about the  
296 relationship between power and economic activity, suggesting direct a trade-off between economic freedom  
297 and political freedom. Indeed, Milton Friedman famously argued that

298 “[. . .] the kind of economic organization that provides economic freedom directly, namely,  
299 competitive capitalism, also promotes political freedom because it separates economic power

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<sup>12</sup>*Epistêmê* (ἐπιστήμη) is the Greek word most often translated as knowledge, while *technê* (τέχνη) is translated as either craft or art.

<sup>13</sup>Galbraith’s (1983) *Anatomy of Power* represents the exception that confirms the rule. Bartlett’s (1989) *Economics and Power* offers a more comprehensive, holistic treatment of the topic, ambitiously aiming to devise a broadly applicable economic theory of power.

300 from political power and in this way enables the one to offset the other. [. . .] By removing the  
301 organization of economic activity from the control of political authority, the market eliminates  
302 this source of coercive power. It enables economic strength to be a check to political power  
303 rather than a reinforcement.” (Friedman, 1962, pp.15–17).

304 In the deductivist-utilitarian models of modern economics, power thus provides the rationale for justi-  
305 fying far reaching politically motivated intervention by government. Whether government interferes with  
306 the market or firms’ excess power distorts the market, neoclassical ontologies of power are ultimately in-  
307 compatible with perfect competition. The Marxian interpretation of capitalism as a system that mediates  
308 power relationships, on the other hand, stands in sharp contrast to the narrow treatment of power in the stan-  
309 dard literature. In the Marxian political economy, all capitalist relations necessarily imply power structures  
310 (Palermo, 2007).

#### 311 4.A. *Power and Institutions*

312 Perhaps surprisingly, social science concepts as diverse as Marxist theories of the state and some insti-  
313 tutional aspects of modern economics share very similar notions of power, either explicit ones in the case of  
314 the former or more implicit ones in the latter case. In both instances, power invariably manifests itself in an  
315 institutional form and differences only arise with regard to the question of the social group or class within  
316 which power is localised. Political theories of pluralism, however, mark a notable exception as power is  
317 dispersed equally among a wide variety of diverse interests. In economics, public choice theory deals to a  
318 limited extent with the dispersion of power outside the institutions of the state.<sup>14</sup> Be it the state, corpora-  
319 tions or civil society, institutional power is best approached from two separate angles. Consequently, the  
320 production of the political community at a national level (sovereignty) needs to be distinguished from the  
321 formal separation of political from economic power within society, i.e. social agency (Aronowitz and Brat-  
322 sis, 2002). Analytically at least, this seems not very different from the distinction made by contemporary  
323 writers in the economic mainstream.

324 Yet, this notion of power seems far too narrow. It does not help to explain the different discursive forma-  
325 tions at play that take place outside the discrete limits of institutions.<sup>15</sup> The comprehensive understanding

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<sup>14</sup>See Cebula (1978) for a discussion of this point in the context of the Tiebout-Tullock hypothesis.

<sup>15</sup>This decline of institutions as loci of power is increasingly prevalent in post-industrial, Western societies. Central to this process are the dynamics of sub-politics politics which – centred around the selves – are absorbing the emancipatory role traditionally played by institutions (Beck, Giddens, and Lash, 1994).

326 of the precise nature and locus of power thus becomes critical – a central point made by Foucault. Indeed,  
327 he vehemently argues against such a narrow interpretation of power in a socio-economic context, object-  
328 ing to the notion that power is limited to a sovereign context and institutional boundaries.<sup>16</sup> Furthermore,  
329 power is not an abstract concept that is owned or shared, but it is a pervasive societal process that produces  
330 knowledge and truth:

331 “[O]ne of the first things that has to be understood is that power isn’t localised in the State  
332 apparatus and that nothing in society will be changed if the mechanisms of power that function  
333 outside, below and alongside the State apparatuses, on a more minute and everyday level, are  
334 not also changed.” (Foucault, 1980, p.60)

335 This stands in sharp contrast to the treatment of institutional aspects of power in mainstream economic  
336 thought, where the issue is almost exclusively addressed in a distributional context; rather than analysing  
337 *how* power works, economists seem more interested in the dichotomy between its equal distribution in  
338 perfect competition and its monopolistic distortions of state intervention. Nonetheless, the study of relations  
339 between individuals and groups is slowly being absorbed into current orthodoxy under the heading of  
340 “social interactions” (e.g. Becker and Murphy, 2000; Durlauf and Young, 2001; Granovetter, 2005). For  
341 now, however, the analytical atomisation of the methodological individualism still characterises mainstream  
342 thinking and largely obscures the relation of the individual to the social context (Hodgson, 1986).

#### 343 *4.B. Power and Markets*

344 The abstract category of the market allows for its almost universal applicability in the social sciences.  
345 It is in the very study of its relationship to power – i.e. its role as a coordination mechanism in complex  
346 exchange economies – where economists diverge most significantly from other social scientists (Lie, 1997).  
347 In a similar sense to the institutional interpretation of power, Austrians like von Mises (1962, 1963 [1996])  
348 and Rothbard (2004) are positioning “power” and “market” as unequivocal antinomies. Accordingly, the  
349 market consists of voluntary transactions between willing parties – firms or individuals – and only the state,  
350 or “power”, introduces compulsion into human relations, bringing about coerced outcomes that people  
351 would not voluntarily have chosen. In complete contrast, *Pouvoir et économie* by French economist Perroux  
352 (1973) develops a notion of power which *is* the market. Like his mentor Léon Walras, Perroux was a

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<sup>16</sup>See also for example Foucault’s (1991) “Governmentality” or his critique of political reason in “Omnes et Singulatim” (Foucault, 1979).

353 Cartesian in method, a socialist in sentiment and an evolutionist in vision. According this notion, general  
354 equilibrium thus becomes the interaction of multiple forces which – in accordance to their relative strength –  
355 reach a steady state by mutual domination. As power relations are prone to change, equilibrium is inherently  
356 instable and unlikely to persist over protracted periods.<sup>17</sup>

357 It is not difficult to see the similarities between Perroux’s conceptualisation of power and that of his  
358 contemporary and countryman Foucault. In both instances, power is interpreted as a disciplinary force that  
359 transcends the boundaries of institutions and shapes social conditions. Despite these similarities, Foucault  
360 cautions against the “economism” that he sees present in the conventional analysis of a theory of power.  
361 In the case of contemporary economic theory, for example, power such as sovereignty or market access is  
362 taken to be a right that can be possessed like a commodity; in the Marxist conception, power is conceived  
363 of as the role it plays in the relations of production and of class domination. In contrast to these “contract-  
364 oppression schema” of power, Foucault’s self-imposed challenge is to master the art of a *non-economic*  
365 analysis of power.

#### 366 4.C. Power, Ideology and the Labour Theory of Value

367 Both the institutional and the market-based contemplation make it very clear that power cannot be  
368 analysed outside of an ideological context. While ideology is tantamount to “false consciousness” in its  
369 strongest Marxist form, I will rely on a weak definition of the term ideology in the current context. Here,  
370 ideology is meant as a set of beliefs, or a specific school of thought, that are concerned with the lasting  
371 reproduction of the a specific system of social control and a particular mode of production. Thus, the  
372 distribution of power and even the very nature of power itself must be understood through the prism of  
373 ideology. In the Marxist tradition, in particular, capitalism is the ideology whose power structures allocate  
374 the means of production in the hands of the few by alienating the masses. The analysis of power in the labour  
375 theory of value – while being dismissed by Joan Robinson as being “metaphysical” – plays an important role  
376 in that it reveals how human transformative power becomes power as domination and exploitation (Özel,  
377 2008). As a descriptive tool in economic analysis, I share Sen’s (1978) interpretation of the labour theory  
378 of value as an important instrument that reveals the structure of power relations in the process of exchange  
379 – not primarily in terms of relative prices, but in terms of relationships between individuals and institutions.

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<sup>17</sup>This school of thought, referred to as “theory of dominance”, has received wide criticism. See Hülsmann (1993) for an overview.

380 In this sense, critical social theory interprets key elements of the capitalist system as authored, ideologi-  
381 cal text through which power is exercised. Agger (1989), for instance, refers to money as such a modal text  
382 which reproduces and stabilises the order of capitalism. While such a radical treatment of power may be  
383 absent from mainstream economics, critical economists like Kindleberger (1970) and Kirshner (1997) have  
384 addressed similar issues from a more traditional perspective. Economic models are not interesting unless  
385 the underlying theory is ascertainably true or false, whereby casual empiricism and intuition are an impor-  
386 tant part of the process of the formulation of theory – a point that I will explore further in section 6. But  
387 if theory has little systematic concern with evidence and reality is only to be understood by a more sophis-  
388 ticated elaboration of existing theory, then economic science quickly degenerates into economic ideology  
389 (Mohun, 2003).

## 390 5. Economics and Knowledge

391 In economic theory, the notion of knowledge encompasses many different aspects, ranging from a broad  
392 conception as the amount of information available about a specific state variable to a more narrow defini-  
393 tion of commodified knowledge (i.e. science and technology) as a factor of production. In both instances,  
394 knowledge is instrumental in the determination of human action and a fundamental organisational princi-  
395 ple of economic activity.<sup>18</sup> In terms of knowledge most broadly conceived, the orthodox interpretation of  
396 knowledge and its relationship to uncertainty owe much to the pioneering uncertainty-risk duality of Frank  
397 Knight, distinguishing between immeasurable uncertainty and quantifiable risk. In this setting, “knowledge  
398 is more a matter of learning than of the exercise of absolute judgment. Learning requires time, and in time  
399 the situation dealt with, as well as the learner, undergoes change” Knight (1921, chap.8). This interpretation  
400 of knowledge lays the foundations for the rational expectations paradigm that emerges from Theil’s (1957)  
401 certainty equivalence proposition – that is the equivalence of expected utility maximisation under uncer-  
402 tainty and optimisation which neglects the uncertainty problem by maximizing utility under the condition  
403 that all uncertain elements are equal to their mean values.

404 However, this sharp delineation of optimizing for a given set of expectations and forming expecta-  
405 tions optimally runs counter to the so-called “knowledge problem” of proponents of the Austrian School,

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<sup>18</sup>McCloskey (1994) discusses the role of the discursive body of knowledge and the epistemological consequences of their rhetoric which might constitute a third aspect of knowledge in economics. In fact, the actual practice of many mainstream economists frequently relies on knowledge outside the strict bounds of the formal theoretical system.



406 a proposition that deserves renewed attention in economic epistemology. Hayek's (1937) pioneering pa-  
407 per "*Economics and Knowledge*" defines the necessarily incomplete and dispersed knowledge of economic  
408 agents as *the* departing point of economic research. In his view, it was never the primary problem of eco-  
409 nomic theory to determine the mathematical conditions of general equilibrium, but rather how the voluntary  
410 coordination of individual plans was achieved. The superstition that only measurable magnitudes can be  
411 important in economics remains a serious problem today; many of the policy mistakes in the run-up to  
412 the financial crisis are directly rooted in a refutation of the Hayekian position to "prefer true but imperfect  
413 knowledge, even if it leaves much indetermined and unpredictable, to a pretence of exact knowledge that is  
414 likely to be false" (Hayek, 1989, p.5).<sup>19</sup>

#### 415 5.A. *Knowledge, Uncertainty and Praxeology*

416 Central to this interpretation of knowledge are von Mises' (1962) beliefs that the nature of economic  
417 activity is just a special sub-set of all human action, which itself is fundamentally governed by values. In  
418 distinct contrast to the natural sciences, knowledge is not based on observations which can be refuted on  
419 the basis of empirical investigations. Instead, it is a set of *a priori laws* that can only be unearthed through  
420 deductive reasoning. This process of discovery is the role of general social science, which – in order to  
421 distinguish it from Comtian sociology – von Mises (1963 [1996]) refers to as *praxeology*. Praxeological  
422 foundations are laid out in the Misesian axiom of human action or purposeful behavior as the "ultimate foun-  
423 dation of economic theory". Society is a product of the human urge to remove uneasiness and dissatisfaction  
424 as far as possible; it is not a product of social classes, political hierarchies, and various other synthetic struc-  
425 tures. In this decidedly Kantian view of social activity, economics is merely a subdiscipline of praxeology  
426 dealing with the laws of human action in a system of private property of the means of production. Accord-  
427 ing to thinkers of the Austrian School, praxeology *is* epistemology. As such, it is diametrically opposed to  
428 Marx's historical materialism which explains how and why historical events occur through the bourgeois-  
429 versus-proletariat class struggle. Accordingly, Marxian analysis sharply separates scientific knowledge  
430 from ideology which gives rise to epistemological issues concerning the characterisation of "knowledge" as  
431 the vantage-point from which the "ideological" is identified.

432 While praxeology is critical towards positivist sociology on epistemological grounds, the critical theory  
433 of Horkheimer and Adorno (1947 [2002]) would declare both projects are flawed, but on different grounds.

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<sup>19</sup>Hayek's epistemic objection against the rationalist illusion of socialism about the scope of human knowledge is also relevant in the contemporary context of environmental economics (O'Neill, 2004).

434 Enlightenment has created *homo oeconomicus* as a logical subject that forms the reference point for rea-  
435 son, preoccupied only with his own self-preservation, yet ultimately incapable of any agency. Despite the  
436 unprecedented social engineering ambitions of economics, recent evidence indeed questions that the en-  
437 gineering efforts of economists can make *homo oeconomicus* true by construction (Santos and Rodrigues,  
438 2009). Placing imperfect knowledge on the part of market participants and economists at the center of its  
439 analysis, the *Imperfect Knowledge Economics* of Frydman and Goldberg (2007) represents an important  
440 component of a post-crisis canon that departs from the perfect knowledge paradigm of contemporary or-  
441 thodoxy. Similarly, Manski (2008) proposes planning under ambiguity which recognises that knowledge of  
442 social interactions can be partial at best. In this sense, Crocco's (2003) concept of social probable knowl-  
443 edge – derived from Keynesian probability theory – perhaps best links knowledge as part of human action  
444 and social structure with the diffusion process of innovation in the context of commodified technological  
445 knowledge.

#### 446 5.B. The Production of Knowledge

447 One of the defining characteristics of the current era of globalisation is the increasing emphasis on  
448 the narrow definition of commodified knowledge and its spatial manifestations in the “knowledge econ-  
449 omy”.<sup>20</sup> While the first wave of globalisation at the end of the nineteenth and early twentieth century was  
450 largely driven by the process of industrialisation, knowledge is at the centre of several processes that operate  
451 within contemporary globalisation. To some extent, the different nature of these two waves of globalisation  
452 is mirrored by the respective theoretical paradigms that accompany them; classical capital theory largely  
453 neglects the accumulation of knowledge as a motor for economic development, whereas modern growth  
454 theory stresses the accumulation of knowledge (Prendergast, 2010). The neoclassical knowledge produc-  
455 tion function embodies this restricted concept of (re-producible) knowledge wherein knowledge enters the  
456 production process in two separate ways: either as a specialised factor of production in the form of *human*  
457 *capital*, or as the *technology* required to achieve the specific combination of factor inputs. In the compelling  
458 shorthand of economic analysis, knowledge can thus be reduced to a mere set of parameters, such as the  
459 factor shares or total factor productivity in popular neoclassical production functions.<sup>21</sup>

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<sup>20</sup>See Malecki (2010) for a comprehensive survey of the recent literature on geographies of commodified knowledge.

<sup>21</sup>In many instances, knowledge is both the human capital *and* the technology required in the production process. Yet, while technological change is widely considered the most importance source of dynamism in capitalist economies, it is still by and large treated as a black box in the mainstream literature. See Freeman (1994) for a critical survey on the economics of technological change.

460 Postmodern theorists like Lyotard (1984) argue that knowledge has become the performativity principle  
461 of the modern age, which has led to a crisis of scientific knowledge. It is this performative production  
462 of knowledge that has eroded its legitimation and that has caused a “scientific crisis” in late capitalist so-  
463 ciety. Universities as the production facilities of capitalist knowledge are at the centre of this crisis, a  
464 phenomenon that receiving increasing attention from critical theorists. Luke (2005), for example, examines  
465 and characterizes the precise condition of contemporary science discourse and research at American Uni-  
466 versities. Unsurprisingly, perhaps, his verdict is grim – merely a reflection of the contextual vacuum the  
467 academic disciplines are currently finding themselves in. Academics are trading in pedagogy for *performa-*  
468 *tivity* as the modern research university encourages the commoditisation and monetization of knowledge.  
469 Instead of seeking “truth, progress or freedom”, universities are putting knowledge to work and corporations  
470 take control over intellectual property and “journal science” becomes the main transmission mechanism of  
471 knowledge. This seems consistent with Neumark’s (1975) speculation that the short historical memories  
472 of postwar economists are perhaps attributable to the competitive “publish or perish” premise in academia,  
473 whereby younger scholars are discouraged to dwell on older bodies of knowledge. In a broader sense, thus,  
474 the reflexivity of Harvey’s (1999) knowledge relation – how the object of knowledge constrains the knowl-  
475 edge of the object through the dynamics of the interaction between investigator and object investigated –  
476 constitutes a central process in the epistemology of economics.

477 The accumulation of knowledge as a means of progress and growth has given way to a subordination  
478 of knowledge to the technological means of production in order to “reinforce reality” – thus reversing the  
479 relationship between knowledge and technology. Lyotard describes this as the legitimation crisis of the  
480 “speculative narrative” of knowledge:

481 “The State and/or company must abandon the idealist and humanist narratives of legitimisation  
482 in order to justify the new goal: in the discourse of today’s financial backers of research, the  
483 only credible goal is power. Scientists, technicians, and instruments are purchased not to find  
484 truth, but to augment power.” (Lyotard, 1984, p.46)

485 There are, of course, distinct parallels to the Foucaultian case where power is producing knowledge. In-  
486 terestingly, this new mode of knowledge production is not only discussed by continental philosophers, but  
487 also constitutes a widely recognised phenomenon in the business management literature. There, however, it  
488 is simply described as *Mode 2* knowledge production.<sup>22</sup> In contrast to the instrumental rationality of knowl-

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<sup>22</sup>This expression was first coined by Nowotny, Limoges, Trow, Schwartzman, Scott, and Gibbons (1994) who use define *Mode*

489 edge in economic thought and its much debated crisis of legitimation in postmodern theory, critical theorists  
490 like [Marcuse \(1964 \[1991\]\)](#) deem the critique of science and technical rationality as the first step towards  
491 overcoming domination. In this context, it is not the accumulation of knowledge that is the emancipatory  
492 force, but overcoming technical rationality that holds the key for social change. (see also [Feenberg, 2010](#),  
493 for a more detailed critique of technological rationality in economics).

## 494 **6. Intuitive Economics**

495 The previous sections have attempted to highlight the extent to which the mainstream tradition of eco-  
496 nomic thought abstracts its analysis from a political and historical context and from the force field of power  
497 and knowledge. The purpose of this section is to plead the case for a re-discovery of the political econ-  
498 omy as the centre of post-crisis social science inquiry. In what follows, I wish to explore the case for a  
499 rediscovery of the epistemological ideals of Edgar [Salin \(1944, 1965\)](#) – in the sense of a “rational recon-  
500 struction” rather than a “doxography” ([Blaug, 1990](#)) – within the larger context of a comprehensive under-  
501 standing of the origins the current crisis of economics. Conceptually, my main argument relies on Sombart’s  
502 “Verstehenslehre” ([Weippert, 1962](#)) and on what later evolved into Salin’s “Anschauliche Theorie”. Most  
503 importantly, perhaps, “intuitive theory” does not only aim at an intellectual retracing of the causal relation-  
504 ships that govern economic activity, but it constitutes an economic theory of social and cultural change that  
505 encompasses broad notions of power and knowledge as discussed above.

### 506 *6.A. Economics as a Social Science*

507 Sombart’s historiographical writings on the nature of capitalism present the most obvious point of de-  
508 parture for a reconstitution of contemporary economics in terms of intuitive theory. Indeed, Sombart was  
509 not only a prolific writer – probably best remembered for his monumental, three volume tome entitled “*Der*  
510 *Moderne Kapitalismus*”(1927), which traces the rise of capitalism over some 2,350 pages –, but he was  
511 also one of the most vociferous opponents of the exclusive reliance on natural science methods in eco-  
512 nomics ([Rogin, 1933](#)). In his efforts to redress the balance against the rise of scientism, he distinguishes  
513 “*verstehende*” (understanding) economics from two other types, “*ordnende*” (ordering) economics and  
514 “*richtende*” (judging or normative) economics, both of which are present in classical economic thought. In

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*I* knowledge production as the traditional, academic and investigator-initiated and discipline-based production, while *Mode 2* is problem-focused and interdisciplinary and involves multidisciplinary teams which work on specific problems in the “real world”, i.e. creating reality.

515 contrast to the methods of the natural sciences, Sombart contends that there is a method appropriate for so-  
516 cial science inquiry that deals with culture – the method of the *Kultur-* or *Geisteswissenschaften*. However,  
517 he is well aware of the complications that such an undertaking entails:

518 “It is the certainly unenviable fate of our entire discipline that it is incapable of gaining any-  
519 thing other than intuition in the realm of cultural knowledge (or science).” (Sombart cited in  
520 [Schefold, 1992](#), p.317, my translation from German)

521 While social science inquiry may engage in some of the same quantitative exercises as the natural sci-  
522 ences, their ultimate task is to enable a deeper understanding of the processes of economic activities. In  
523 many ways, Keynesian economics shares important methodological aspects of intuitive theory in so far as  
524 Keynesians utilised their own introspection and judgement regarding how the various actors in the econ-  
525 omy would behave, including the norms of how actors think that they should behave. The methodological  
526 individualism of post-Keynesian macroeconomics, however, has largely removed such norms from the con-  
527 sumption, saving and investment motivations of representative agents ([Akerlof, 2007](#)). A systematic under-  
528 standing of the economic consequences of these culturally embedded norms is precisely what characterises  
529 Salin’s political economy.

### 530 6.B. Edgar Salin’s “*Anschauliche Theorie*”

531 Like Sombart and the brothers Weber, Salin was an economist with sociological erudition. While a  
532 student of Alfred Weber’s, he reportedly admired Max Weber’s personality, but remained highly critical  
533 of Weber’s reliance on abstract concepts to explain social phenomena. Bertram Schefold, a student of  
534 Salin’s, reports an illustrative exchange between Max Weber and Salin over Theodor Mommsen’s Nobel  
535 prizewinning work on the history of the Roman Empire. Asked what he thought of it, “Weber, upon this,  
536 very loud: ‘That is no science!’ Salin replicated: ‘Then I don’t know how your science could serve what  
537 is alive and why it should be of interest for us’.” ([Schefold, 2004](#), p.3). Salin argued that the question  
538 to what extent economics was to be viewed a social science, or even part of the humanities, principally  
539 depended on the scientific questions that the field addressed – not the methods it deployed. In the context  
540 of the modern science wars, however, the disciplinary identity of mainstream economics almost exclusively  
541 rests on method. As discussed above, the epistemological origins of scientism in economics are rooted in  
542 the philosophy of the great Classical economists. There, the dependence of economics on natural science  
543 ideals is motivated by the desire to interpret the capitalist mode of production as a process which was

544 to be liberated from political interference. Indeed, this interpretation reached an early paradigmatic peak  
545 with the marginalist or neoclassical revolution (Mirowski, 1984). The economic modelling paradigm of  
546 postwar orthodoxy has since become a new standard of economic thought – a standard which has completely  
547 done away with any hermeneutics in order to understand cultural embedding of economic activity. The  
548 deductivist-formalistic models of the reigning paradigm – down to the preferences of representative agents  
549 – are largely deterministic. Reflective interpretation on historical conditions and circumstances is no longer  
550 viewed as key element of economic analysis.

551 Intuitive theory begs to differ. Salin’s work was guided by the desire to establish intuitive theory as a  
552 viable alternative to the doctrine of the Chicago School which depends exclusively on neoclassical rational-  
553 ity. While still relying on rational theory, intuitive theory also “incorporates sociological and psychological  
554 moments to deepen the understanding of capitalism” (Schefold, 1992, p.304), particularly with regard to  
555 interdependencies in the investment process or the economic cycle, again with straight-forward analogies  
556 in the Keynesian system. Indeed, it is not difficult to see the parallels to concepts developed by some of  
557 Salin’s contemporaries – intuitive concepts such as Wagemann’s (1930) pioneering “economic rhythms”  
558 upon which Schumpeter (1939) founded his business cycles theory or Keynes’ “animal spirits”, both of  
559 which have survived the neoclassical synthesis. Overcoming the implicit antagonism of intuitive concepts  
560 and formal models represent perhaps one of the most formidable challenges for intuitive economics. Al-  
561 though admiring Keynes for his writing skills and Schumpeter for his sociology of the entrepreneur, Salin  
562 showed contempt for formalistic model building. He vehemently criticised abstract models as “partial  
563 knowledge” – not devoid of truth, but erroneous because of the generalisations usually based on it (Schefold,  
564 2004):

565 On the one hand, a general weakening of the feeling for language (“Sprachgefühl”) is bolstering  
566 the ranks of mathematically-inclined macroeconomists among the younger generation [. . .] on  
567 the other hand, the triumph of fashionable catchphrases is further facilitated not only by the fact  
568 that a sense of history is mysteriously dissipating, but also by the fact that scientific tradition is  
569 gradually losing its importance. (Salin cited in Röpke, 1963, my translation from German)

570 Above all, Salin objected to the “dehumanisation of pure theory” in the economic canon that emerged  
571 from the neoclassical synthesis. He characterised *homo oeconomicus* as an “anaemic creature” that was in-  
572 capable of yielding fundamental insights, given the complexity of economic realities (Kapp, 1967). Recog-  
573 nising the increasing importance of nonmarket interactions (“ausserwirtschaftlichen Faktoren”), Salin ap-

574 appreciated the limiting, even distorting nature of the prism of pure-rational market behaviour. As such, he  
575 anticipated an active contemporary research agenda on hitherto disregarded critical segments of the econ-  
576 omy in the form of nonmarket social interactions or nonmarket externality spillovers (e.g. [Glaeser, 2000](#)).

### 577 *6.C. Elements of a Synthesis*

578 Intuitive theory is inspiration, not romantic irrationality as Salin's many critics – including Max Weber  
579 – were quick to condemn. Far from clinging to a nostalgic backward gaze, Salin hoped to resuscitate those  
580 forces in scientific inquiry that were being suffocated by the preponderance of pure rationalism. Indeed,  
581 Salin speaks of Weber's attempts to establish objective, value-free science as

582 “[...] the tragic courage of a lost generation [which] draws the conclusion from the palsy of  
583 the old values, ideals and religions that there are no Gods, no set ranks and no all-binding  
584 measures, thus becoming the propagators of the last level of de-selfed and de-spirited work.”  
585 (Salin, 1932, cited in [Schefold, 1992](#), p.317, my translation from German).

586 In fact, the preoccupation of orthodox mainstream economists with a defense of the principle of *Wert-*  
587 *freiheit* and their resistance to “value-impregnation” have blinkered the scope of economics in the sense that  
588 important questions which might have been asked were not considered (e.g. [Klappholz, 1964](#)). Intuitive the-  
589 ory presents a methodological alternative to this; it provides an inductive counterbalance to the rationalism  
590 of deductive abstraction of contemporary economics. In this sense, intuitive economics shares important  
591 intellectual common grounds with [McCloskey's \(1994\)](#) “interpretive economics” where the social construc-  
592 tion of the individual is viewed as a process that is institutionally anchored and constantly reconstituted by  
593 the forces of power and knowledge.

594 Intuitive theory does not reject rationality outright – it keeps a rational core that explains the functioning  
595 of a particular system while relying on descriptive components to explain the totality of economic activities.  
596 With a historical focus similar to that of the work of Marx, Weber and Schumpeter, intuitive theory depends  
597 on context and aims to marry economic analysis with political, sociological or cultural insights. Salin thus  
598 proposes intuitive theory as encompassing rational theory in the sense of either classical or neoclassical  
599 theory of value, while capable of describing the consequences of other forms of motivation. In other words,  
600 intuitive theory integrates both power and knowledge in a way that most of mainstream economics has come  
601 to abstract from them. Beyond the “partial cognition” of the latter, the former aims high to visualise the  
602 *Gestalt* of capitalism. In intuitive theory, capitalism is a totality that neither resulted from a concentration



603 of experience nor from hypothetical abstractions of some logical principle alone – neither empirical phe-  
604 nomena nor constructed ideal types are capable of exhausting the term “capitalism”. They just constitute  
605 a limited understanding, whereas intuitive theory relies on a synthesis of these elements to achieve “total  
606 cognition” (Gesamterkenntnis). Synthesising context with value-rationality allows intuitive theory to be  
607 strong where natural science is weak.<sup>23</sup> Salin’s approach is equally grounded in the original traditions of  
608 Marx and Ricardo with the political economy as *the* focal point of social science inquiry:

609 “All economic science is – in its intrinsic nature and by its objectives – a political science  
610 [...] and will thus remain, from the very beginnings into the future, a study of the political  
611 economy.” (Salin, 1965, p.16, my translation from German).

612 Focusing on values steeped in situational ethics and contextualism and placing power at the core of  
613 the analysis, Salin proposes a de-centred method of social inquiry. Rather than fretting over parametric  
614 versus non-parametric methods or loosing sight when adding the *n*-th equation to unwieldy DSGE mod-  
615 els, economists should start asking again “*where are we going?*”, “*is it desirable?*” and “*what should be*  
616 *done?*”. In the wake of the financial crisis, Salin’s (1963) inquiry into the increasing tensions between in-  
617 evitable economic concentration and the potentially harmful impact of laws against cartelisation in “Kartel-  
618 lverbot und Konzentration” seems almost prophetic; the origins of the global financial crisis cannot be  
619 understood without considering the nature of concentration in the financial services industry and its inter-  
620 action with the regulatory environment. In this context, few economists would question the importance of  
621 the repeal of the Glass-Steagall Act of 1933 by the Gramm-Leach-Bliley Act – effectively removing the  
622 separation between investment and commercial banking – and the procyclical nature of international capital  
623 adequacy requirements. At the same time, while most governments have come to accept that post-Glass-  
624 Steagall financial intermediaries are indeed too big to fail, government-mandated takeovers have further  
625 accelerated the spiral of concentration in the financial sector following the Lehman Bros bankruptcy in  
626 September 2008.

627 In light of an economic reality of asymmetric institutional power relations and imperfect knowledge that  
628 produce diverging regulatory incentives and financial fragility, the standard assumptions embedded in the  
629 micro-foundations of mainstream models – where infinitely-lived optimising agents operate in simplistic

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<sup>23</sup>In this sense, Salin’s intuitive theory is precisely what – almost over half a century later – Flyvbjerg (2001) re-invents and re-labels as “phronetic social science”. His plea for induction and the importance of case studies as a scientific method *is* intuitive theory. More “strategic sampling” and more “good narrative” which resists the temptations of generalization *is* intuitive theory.



630 market structures – appear curiously detached at best. As a result, the contemporary relevance of orthodox  
631 economic analysis has become marginalised in the Robinsonian sense that “arguments are largely devoted,  
632 as in theology, to supporting doctrines rather than testing hypotheses [and] current teaching is conducted  
633 in terms of models that are evidently not intended to be taken seriously as hypotheses about reality, but  
634 are used rather to inculcate an orthodox ideology” (Robinson, 1977, p.1320). While the idea of an en-  
635 dogenously generated crisis and functional depression has always been at the core of Marxian theory, the  
636 post-Keynesian paradigm of the neoclassical synthesis has either assumed that accumulation is balanced or  
637 theorised about standards pattern of expansion and contraction that ignored the potential for instability.<sup>24</sup>  
638 Instead, incorporating power and knowledge to form intuitive economics reverses the standard logical re-  
639 lation between microeconomics and macroeconomics, posing Marx’s question once again: What are the  
640 macro-foundations of microeconomics?

## 641 7. Outlook

642 The absence of various notions of power and knowledge in contemporary economic analysis has gone  
643 hand in hand with the increasing mathematical formalisation of and reliance on method in the dismal sci-  
644 ence. Beyond the destructive forces of the science wars, this paper argues the case for a viable alternative to  
645 overcome the current crisis of vision of contemporary economic thought that is mired in method: Intuitive  
646 economics suggests an analytical framework that integrates power and knowledge, while not completely  
647 jettisoning the cultural heritage of rational economic theory. While their Marxist legacies have inspired  
648 a notable array of critical methodologies in sociology or political science, such projects are rare in eco-  
649 nomics.<sup>25</sup> Whereas heterodox economists often view the dialectical method as the only “true science”,  
650 intuitive method outlined in this paper is less radical and insists on the complementarity of both rational-  
651 ism and empiricism. Intuitive theory recognizes that science is necessary precisely because “essence and  
652 appearance” never directly coincide; and it ascribes to science the task of the discovery of the essence of  
653 economic relations which are obscured by their superficial appearances.

654 Macroeconomic theory after the crisis is at risk of being reduced to the partial cognition of abstract  
655 models which miss the totality of empirical reality. For any theory to claim relevance, its intellectual repro-  
656 duction of reality must remain in constant contact with the actual movement of history. Only embedding

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<sup>24</sup>The recent rediscovery of Minsky’s (1991) work on the relationship of uncertainty and finance to the business cycle is an obvious exception.

<sup>25</sup>Mandel’s (1978) *Late Capitalism* marks an important exception which with parallels to the work of Sombart and Salin, in more than just the name (cf. Sombart’s *Der Moderne Kapitalismus* and Salin’s essay entitled *Hochkapitalismus*).

657 the rational analysis of economic activities within the total cognition of intuitive theory will reveal the true  
658 *Gestalt* of capitalism – Salin’s most ambitious goal. Adequate social science needs to reflect that the inter-  
659 play between culture and economy is not static and thus cannot be analysed using static methods. Therein  
660 lay the true origins of the crisis of vision in contemporary economics. In many ways, it seems plausible  
661 that one of the main intellectual failures of economics in the context of the recent financial crisis arose di-  
662 rectly from the longstanding disconnect between theory and (factual) knowledge, or to use Robbins’ (1998)  
663 terminology, between “economic generalisation and reality”. This shortcoming continues to be particularly  
664 persistent in monetary theory where “a steadfast refusal to face the facts” (Goodhart, 2009) undoubtedly  
665 exacerbated the inadequacy of disciplinary responses to the financial meltdown. Intuitive economics does  
666 not have shy away from a rigorous use of mathematical techniques. But instead of using abstract models  
667 that make claims about real-world predictions, it would combine the quantitative methods of visualisation  
668 and imaging of computational science with intuitive models that embody the interactions of complex fea-  
669 tures such as power and institutional and behavioural knowledge (e.g. Dutt, 2011, for an approach in this  
670 direction).

671 Beyond the methodological context of a broader treatment of power and knowledge under the umbrella  
672 of intuitive theory, another facet of Salin’s work highlights his contemporary relevance: His astute observa-  
673 tions on the political economy of (precursors to) the Eurozone predict many aspects of the current European  
674 debt crisis with astounding accuracy and contain insights for policy that rival the relevance of most con-  
675 temporary large-scale theoretical models (Salin, 1960, 1964, 1973). While the rise of English as the lingua  
676 franca of science is likely to be a significant barrier to Salin’s influence and relevance for future generations  
677 of English-only economists, the hope of this article is to re-engage some of Salin’s intellectual legacy in  
678 the current debate on the epistemological direction of economics.<sup>26</sup> In fact, the recent revival of intuitive  
679 concepts by prominent economists, such as Akerlof and Shiller (2009), signals a silver lining for a more  
680 prominent role of intuitive theorising in post-crisis economic thought. As in any epoch that faces transi-  
681 tion, a purposeful utopian vision rather than a melancholic backward gaze holds the key to manage change  
682 successfully (Kloten and Salin, 1967). Indeed, I would add to DeLong’s (2011) call that the discipline  
683 needs “fewer model-builders and more old-fashioned Keynesians” that we also need a greater pluralism of  
684 heterodox political economists – Salinians as it were – capable of engaging the orthodox mainstream.

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<sup>26</sup>It would certainly be overly optimistic to expect a revival of intuitive theory of similar proportions to the recent renaissance of von Schmoller’s work who – despite not being translated widely – has had a long-standing large influence on English-speaking thinkers, particularly among institutional economists (Senn, 1989; Peukert, 2001).

685 **References**

- 686 AGGER, B. (1989): *Fast Capitalism: A Critical Theory of Significance* chap. Fast Capitalism?, pp. 15–22. University of Illinois  
687 Press, Urbana and Chicago.
- 688 ——— (2006): *Critical Social Theories: An Introduction* chap. The Politics of Grand Narratives I, pp. 34–55. Paradigm Publish-  
689 ers, 2nd edn.
- 690 AKERLOF, G. A. (2007): “The Missing Motivation in Macroeconomics,” *American Economic Review*, 97(1), 6–36.
- 691 AKERLOF, G. A., AND R. J. SHILLER (2009): *Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for*  
692 *Global Capitalism*. Princeton University Press, Princeton, NJ.
- 693 ANDERSON, G., J. EKELUND, ROBERT B., AND R. D. TOLLISON (1992): “Methodenstreit: The Economics of Competing Interests,”  
694 *European Journal of the History of Economic Thought*, 8(3), 401–418.
- 695 ARONOWITZ, S., AND P. BRATSKIS (eds.) (2002): *Paradigm Lost: State Theory Reconsidered*. University of Minnesota Press, Min-  
696 neapolis.
- 697 ASPROMOURGOS, T. (1986): “On the Origins of the Term ‘Neoclassical’,” *Cambridge Journal of Economics*, 10(3), 265–270.
- 698 ATKINSON, A. B. (2009): “Economics as a Moral Science,” *Economica*, 76(s1), 79–804.
- 699 BARTLETT, R. (1989): *Economics and Power: An Inquiry into Human Relations and Markets*. Cambridge University Press, Cam-  
700 brige, UK.
- 701 BECK, U., A. GIDDENS, AND S. LASH (1994): *Reflexive Modernization: Politics, Tradition and Aesthetics in the Modern Social Order*.  
702 Stanford University Press, Stanford.
- 703 BECKER, G. S., AND K. M. MURPHY (2000): *Social Economics: Market Behavior in a Social Environment*. Harvard University Press.
- 704 BELL, D., AND I. KRISTOL (eds.) (1981): *The Crisis in Economic Theory*. Basic Books Inc., New York, NY.
- 705 BERNANKE, B. S. (2010): “Implications of the Financial Crisis for Economics,” Speech, Center for Economic Policy Studies and  
706 Bendheim Center for Finance, Princeton University, Princeton, NJ.
- 707 BESLEY, T., AND P. HENNESSY (2009): “Reply to HRH the Queen,” Letter, British Academy.
- 708 BIERI, D. S. (2009): “Financial Stability, the Basel Process and the New Geography of Regulation,” *Cambridge Journal of Regions*,  
709 *Economy and Society*, 2(2), 303–331.
- 710 ——— (2010): *Lessons from the Financial Crisis: Insights and Analysis from Today’s Leading Minds* chap. Regulation and  
711 Financial Stability in the Age of Turbulence, pp. 327–336. John Wiley & Sons, Inc., Hoboken, NJ.
- 712 BIS (2009): *79th Annual Report*. Bank for International Settlements, Basel, Switzerland.
- 713 BLAUG, M. (1990): “On the Historiography of Economics,” *Journal of the History of Economic Thought*, 12(1), 27–37.
- 714 ——— (1998): “The Problems with Formalism,” *Challenge*, 1, 42–48.
- 715 BOSTAPH, S. (1978): “The Methodological Debate between Carl Menger and the German Historicists,” *Atlantic Economic Journal*,  
716 6(3), 3–16.
- 717 BRITAN, A. (1983): “Sociology as a Private Language,” *Poetics Today*, 4(3), 581–594.
- 718 CEBULA, R. J. (1978): “An Empirical Note on the Tiebout-Tullock Hypothesis,” *Quarterly Journal of Economics*, 92(4), 705–711.
- 719 COLANDER, D. (2000): “The Death of Neoclassical Economics,” *Journal of the History of Economic Thought*, 22(2), 127–144.
- 720 ——— (2011): “Is the Fundamental Science of Macroeconomics Sound?,” *Review of Radical Political Economics*, 43(3), 302–  
721 309.
- 722 COLANDER, D., M. GOLDBERG, A. HAAS, A. KIRMAN, K. JUSELIUS, B. SLOTH, AND T. LUX (2010): *Lessons from the Financial Crisis: In-*  
723 *sights and Analysis from Today’s Leading Minds*, chap. The Financial Crisis and the Systemic Failure of Academic Economics,  
724 pp. 427–436. John Wiley & Sons, Inc.
- 725 COLANDER, D., P. HOWITT, A. KIRMAN, A. LEIJONHUFVUD, AND P. MEHLING (2008): “Beyond DSGE Models: Toward an Empirically  
726 Based Macroeconomics,” *American Economic Review*, 98(2), 236–240.
- 727 CROCCO, M. (2003): “Innovation and Social Probable Knowledge,” *Cambridge Journal of Economics*, 27, 177–190.
- 728 CROTTY, J. (1980): “Post-Keynesian Economic Theory: An Overview and Evaluation,” *American Economic Review*, 70(2), 20–25.
- 729 DAVIS, J. B. (2008): “The Turn in Recent Economics and Return of Orthodoxy,” *Cambridge Journal of Economics*, 32(3), 349–366.
- 730 DELONG, J. B. (2011): “Economics in Crisis,” *Economists’ Voice*, 8(2), Article 2.
- 731 DOW, S. C. (1997): “Mainstream Economic Methodology,” *Cambridge Journal of Economics*, 21(1), 73–93.
- 732 DURLAUF, S. N., AND H. P. YOUNG (2001): *Social Dynamics, Economic Learning and Social Evolution*. Brookings Institution Press  
733 and MIT Press.
- 734 DUTT, A. K. (2011): “Macroeconomic Theory after the Crisis,” *Review of Radical Political Economics*, 43(3), 310–316.
- 735 ETZIONI, A. (1986): “Founding a New Socio-economics,” *Challenge*, 29(5), 13–18.
- 736 EUCKEN, W. (1950): *Die Grundlagen der Nationalökonomie*. Springer Verlag, Berlin, Göttingen, Heidelberg, 6 edn.
- 737 FEENBERG, A. (2010): “Marxism and the Critique of Social Rationality: From Surplus Value to the Politics of Technology,” *Cam-*  
738 *bridge Journal of Economics*, 34(1), 37–49.
- 739 FINNEGAN, R. B. (1972): “International Relations: The Disputed Search for Method,” *Review of Politics*, 34(1), 40–66.

- 740 FLYVBJERG, B. (2001): *Making Social Science Matter: Why Social Inquiry Fails and How It Can Succeed Again*. Cambridge  
741 University Press, Cambridge, first edn.
- 742 FOUCAULT, M. (1979): "Omnes et Singulatim: Towards a Criticism of 'Political Reason'," in *The Tanner Lectures on Human Values*,  
743 pp. 225–254. Stanford University.
- 744 ——— (1980): *Power/Knowledge: Selected Interviews & Other Writings 1972–1977*. Pantheon Books.
- 745 ——— (1991): *The Foucault Effect: Studies in Governmentality* chap. Governmentality, pp. 87–104. University of Chicago Press,  
746 Chicago, first edn.
- 747 ——— (1995): *Discipline & Punish: The Birth of the Prison*. Vintage Books, New York City, reprint edn.
- 748 FREEMAN, C. (1994): "The Economics of Technical Change," *Cambridge Journal of Economics*, 18(5), 463–514.
- 749 FRIEDMAN, M. (1962): *Capitalism and Freedom*. University of Chicago Press, Chicago, first edn.
- 750 FRYDMAN, R., AND M. D. GOLDBERG (2007): *Imperfect Knowledge Economics: Exchange Rates and Risk*. Princeton University  
751 Press, Princeton, NJ.
- 752 GALBRAITH, J. K. (1983): *The Anatomy of Power*. Houghton Mifflin Harcourt, Boston, MA.
- 753 GLAESER, E. L. (2000): "The Future of Urban Research: Nonmarket Interactions," *Brookings-Wharton Papers on Urban Affairs*,  
754 2000(1), 101–138.
- 755 GOODHART, C. A. E. (2009): "The Continuing Muddles of Monetary Theory: A Steadfast Refusal to Face Facts," *Economica*,  
756 76(S1), 821–830.
- 757 GRANOVETTER, M. S. (2005): "The Impact of Social Structures on Economic Outcomes," *Journal of Economic Perspectives*, 19(1),  
758 33–50.
- 759 HANDS, D. W. (2007): "A Tale of Two Mainstreams: Economics and Philosophy of Natural Science in the mid-20th Century,"  
760 *Journal of the History of Economic Thought*, 29(1), 1–13.
- 761 HARVEY, M. (1999): "How the Object of Knowledge Constrains Knowledge of the Object: An Epistemological Analysis of a Social  
762 Research Investigation," *Cambridge Journal of Economics*, 23(4), 485–501.
- 763 HAYEK, F. A. (1937): "Economics and Knowledge," *Economica*, 4(13), 33–54.
- 764 ——— (1942): "Scientism and the Study of Society," *Economica*, 9(35), 267–291.
- 765 ——— (1989): "The Pretense of Knowledge," *American Economic Review*, 79(6), 3–7.
- 766 HEILBRONER, R. L., AND W. S. MILBERG (1995): *The Crisis of Vision in Modern Economic Thought*. Cambridge University Press,  
767 Cambridge, UK, first edn.
- 768 ——— (2002): "Revisiting The Crisis of Vision in Modern Economic Thought," *Post-autistic Economics Review*, 16(5), 3–18.
- 769 HIRSCHLEIFER, J. (1985): "The Expanding Domain of Economics," *American Economic Review*, 75(6), 53–68.
- 770 HODGSON, G. M. (1986): "Behind Methodological Individualism," *Cambridge Journal of Economics*, 10(2), 211–224.
- 771 ——— (2008): "Prospects for Economic Sociology," *Philosophy of the Social Sciences*, 38(1), 133–149.
- 772 ——— (2009): "The Great Crash of 2008 and the Reform of Economics," *Cambridge Journal of Economics*, 33(6), 1205–1221.
- 773 HODGSON, G. M., S. C. DOW, P. E. EARL, J. FOSTER, G. C. HARCOURT, J. S. METCALFE, P. ORMEROD, B. ROSEWELL, M. C. SAWYER, AND  
774 A. TYLECOTE (2009): "Reply to HRH the Queen: Why Few Economists Had Foreseen The Credit Crunch," Discussion paper,  
775 The Business School, University of Hertfordshire.
- 776 HOLLANDER, S. (1989): "On P. Mirowski's 'Physics and the "Marginalist Revolution"'," *Cambridge Journal of Economics*, 13(3),  
777 459–470.
- 778 HORKHEIMER, M., AND T. W. ADORNO (1947 [2002]): *Dialectic of Enlightenment: Philosophical Fragments*. Stanford University  
779 Press, Stanford.
- 780 HUERTA DE SOTO, J. (1998): "The Ongoing Methodenstreit of the Austrian School," *Journal des Economistes et des Etudes Hu-*  
781 *maines*, 8(1), 75–113.
- 782 HÜLSMANN, J. G. (1993): *Kritik der Dominanztheorie: Zur machtheoretischen Wirtschaftsanalyse Francois Perroux' und zur*  
783 *Bedeutung von auf sie zurückgehenden wirtschaftspolitischen Vorschlägen*. Rita Fischer, Frankfurt a.M.
- 784 INGHAM, G. (1996): "Some Recent Changes in the Relationship between Economics and Sociology," *Cambridge Journal of Eco-*  
785 *nomics*, 20(2), 243–275.
- 786 KAPP, K. W. (1967): "Zum Problem der Enthumanisierung der (Reinen) Theorien und der Gesellschaftlichen Realität," *Kyklos*,  
787 20(3), 307–330.
- 788 KAUL, N. (2002): "A Critical 'Post' to Critical Realism," *Cambridge Journal of Economics*, 26(6), 709–726.
- 789 KEYNES, J. M. (1936): *The General Theory of Employment, Interest and Money*. Macmillan, London, 1st edn.
- 790 KINDLEBERGER, C. P. (1970): *Power and Money: The Economics of International Politics and the Politics of International Eco-*  
791 *nomics*. Basic Books, New York.
- 792 KIRSHNER, J. (1997): *Currency and Coercion: The Political Economy of International Monetary Power*. Princeton University Press,  
793 Princeton, paperback edn.
- 794 KLAPPHOLZ, K. (1964): "Value Judgements in Economics," *British Journal for the Philosophy of Science*, 15(58), 97–114.
- 795 KLOTEN, N., AND E. SALIN (1967): "Utopie und Leitbild im Wirtschaftspolitischen Denken," *Kyklos*, 20, 331–354.

- 796 KNIGHT, F. H. (1921): *Risk, Uncertainty, and Profit*. Houghton Mifflin Co., Boston, MA.
- 797 KRIPPNER, G. R. (2005): "The Financialization of the American Economy," *Socio-Economic Review*, 3(2), 173–208.
- 798 LAWSON, T. (2009): "The Current Economic Crisis: Its Nature and the Course of Academic Economics," *Cambridge Journal of*  
799 *Economics*, 33(4), 759–777.
- 800 LIE, J. (1997): "Sociology of Markets," *American Review of Sociology*, 23(3), 341–360.
- 801 LUKE, T. W. (2005): "From Pedagogy to Performativity: The Crises of Research Universities, Intellectuals and Scholarly Commu-  
802 nication," *Telos*, 1(131), 13–32.
- 803 LYOTARD, J.-F. (1984): *The Postmodern Condition: A Report on Knowledge*, vol. 10 of *Theory and History of Literature*. University  
804 of Minnesota Press, Minneapolis, 1 edn.
- 805 MALECKI, E. J. (2010): "Everywhere? The Geography of Knowledge," *Journal of Regional Science*, 50(1), 493–513.
- 806 MANDEL, E. (1978): *Late Capitalism*. Verso, London, verso edition edn., first published as "Der Spätkapitalismus", Suhrkamp  
807 Verlag, 1972.
- 808 MANKIW, N. G. (2006): "The Macroeconomist as Scientist and Engineer," *Journal of Economic Perspectives*, 20(4), 29–46.
- 809 MANSKI, C. F. (2008): "Social Planning with Partial Knowledge of Social Interactions," *Journal of Theoretical and Institutional*  
810 *Economics*, 164(3), 1–21.
- 811 MARCUSE, H. (1964 [1991]): *One-Dimensional Man: Studies in the Ideology of Advanced Industrialised Society*. Beacon Press,  
812 Boston, second edn.
- 813 McCLOSKEY, D. N. (1983): "The Rhetoric of Economics," *Journal of Economic Literature*, 21(2), 482–517.
- 814 ——— (1994): *Knowledge and Persuasion in Economics*. Cambridge University Press, Cambridge, UK.
- 815 MENGER, C. (1883 [1985]): *Investigations into the Method of the Social Sciences with Special Reference to Economics*. New York  
816 University Press, New York.
- 817 MICHAELIDES, P. G., AND J. G. MILIOS (2009): "Joseph Schumpeter and the German Historical School," *Cambridge Journal of*  
818 *Economics*, 33(2), 495–516.
- 819 MILBERG, W. (1988): "The Language of Economics: Deconstructing the Neoclassical Text," *Social Concepts*, 4(2), 33–57.
- 820 ——— (1993): "Natural Order and Postmodernism in Economic Thought," *Social Research*, 60(2), 255–277.
- 821 MINSKY, H. P. (1991): *The Risk of Economic Crisis* chap. The Financial Instability Hypothesis: A Clarification, pp. 56–71. Univer-  
822 sity of Chicago Press, Chicago.
- 823 MIROWSKI, P. (1984): "Physics and the 'Marginalist Revolution'," *Cambridge Journal of Economics*, 8(4), 361–379.
- 824 MITCHELL, W. C. (1925): "Quantitative Analysis in Economic Theory," *American Economic Review*, 15(1), 1–12.
- 825 MOHUN, S. (2003): "Ideology, Markets and Money," *Cambridge Journal of Economics*, 27(3), 401–418.
- 826 MONGIOVI, G. (1988): "The American Methodenstreit," *Journal of the History of Economic Thought*, 10(1), 57–66.
- 827 NEUMARK, F. (1975): "Zyklen in der Geschichte Ökonomischer Ideen," *Kyklos*, 28(5), 257–285.
- 828 NIEHANS, J. (1990): *A History of Economic Theory: Classic Contributions 1720–1980*. Johns Hopkins University Press, Baltimore  
829 and London.
- 830 NOWOTNY, H., C. LIMOGES, M. TROW, S. SCHWARTZMAN, P. SCOTT, AND M. GIBBONS (1994): *The New Production of Knowledge: The*  
831 *Dynamics of Science and Research in Contemporary Societies*. Sage Publications Inc, first edn.
- 832 O'NEILL, J. (1986): "The Disciplinary Society: From Weber to Foucault," *British Journal of Sociology*, 37(1), 42–60.
- 833 ——— (2004): "Ecological Economics and the Politics of Knowledge: the Debate between Hayek and Neurath," *Cambridge*  
834 *Journal of Economics*, 28(3), 431–447.
- 835 ÖZEL
- 836 ÖZEL, H. (2008): "The Notion of Power and the "Metaphysics" of Labor Values," *Review of Radical Political Economics*, 40(4),  
837 445–461.
- 838 PALERMO, G. (2007): "The Ontology of Economic Power in Capitalism: Mainstream Economics and Marx," *Cambridge Journal of*  
839 *Economics*, 31(4), 539–561.
- 840 PERROUX, F. (1973): *Pouvoir et économie*. Bordas, Paris.
- 841 PEUKERT, H. (2001): "The Schmoller Renaissance," *History of Political Economy*, 33(1), 71–116.
- 842 PIGOU, A. C. (1936): "Mr J.M. Keynes' General Theory of Employment, Interest and Money," *Economica*, 3(10), 115–132.
- 843 PRENDERGAST, R. (2010): "Accumulation of Knowledge and Accumulation of Capital in Early Theories of Growth and Develop-  
844 ment," *Cambridge Journal of Economics*, 34(3), 413–431.
- 845 ROBBINS, L. (1998): *A History of Economic Thought: The LSE Lectures*. Princeton University Press, Princeton and Oxford.
- 846 ROBINSON, J. (1953): "The Production Function and the Theory of Capital," *Review of Economic Studies*, 21(2), 81–106.
- 847 ——— (1972): "The Second Crisis of Economic Thought," *American Economic Review*, 62(1/2), 1–10.
- 848 ——— (1977): "What Are the Questions?," *Journal of Economic Literature*, 15(4), 1318–1339.
- 849 ROGIN, L. (1933): "Werner Sombart and the "Natural Science Method" in Economics," *Journal of Political Economy*, 41(2), 222–  
850 236.
- 851 RÖPKE, W. (1963): "Bemerkungen zu Salins Lynkeus," *Kyklos*, 16(4), 655–659.

- 852 ROTHBARD, M. N. (2004): *Man, Economy, and State* chap. Power and Market, pp. 1047–1367. Mises Institute, scholar edn.
- 853 RUSSELL, B. (1938): *Power: A New Social Analysis*. Routledge, New York.
- 854 SALIN, E. (1944): *Geschichte der Volkswirtschaftslehre*. Francke, Bern, 4th edn.
- 855 ——— (1960): “Für ein Alignment der Währungen,” *Kyklos*, 13(4), 437–455.
- 856 ——— (1963): “Kartellverbot und Konzentration,” *Kyklos*, 16(2), 177–202.
- 857 ——— (1964): “Devisen-Bann-Wirtschaft,” *Kyklos*, 17(2), 149–164.
- 858 ——— (1965): *Politische Ökonomie: Geschichte der wirtschaftspolitischen Ideen von Platon bis zur Gegenwart*. Mohr, Tübingen,
- 859 5th edn.
- 860 ——— (1973): “Die EWG im Koma: Ein weiteres Kapitel der politischen Ökonomie,” *Kyklos*, 26(4), 723–735.
- 861 SANTOS, A. C. (2011): “Behavioural and Experimental Economics: Are They Really Transforming Economics?,” *Cambridge*
- 862 *Journal of Economics*, 35(4), 705–728.
- 863 SANTOS, A. C., AND J. A. RODRIGUES (2009): “Economics as Social Engineering? Questioning the Performativity Thesis,” *Cambridge*
- 864 *Journal of Economics*, 33, 985–1000.
- 865 SCHEFOLD, B. (1992): “Nationalökonomie als Geisteswissenschaft – Edgar Salins Konzept einer Anschaulichen Theorie,” *List*
- 866 *Forum für Wirtschafts- und Finanzpolitik*, 18(4), 303–324.
- 867 ——— (2002): *The Future of the History of Economics* chap. Reflections on the Past and Current State of the History of Economic
- 868 Thought in Germany, pp. 125–136. Duke University Press, Durham and London.
- 869 ——— (2004): “Edgar Salin and his Concept of ‘Anschauliche Theorie’ (Intuitive Theory) During the Interwar Period,” *Annals*
- 870 *of the Society for the History of Economic Thought*, 46, 1–16.
- 871 SCHUMPETER, J. A. (1939): *Business Cycles: A Theoretical, Historical and Statistical Analysis of the Capitalist Process*, vol. I & II.
- 872 McGraw-Hill, New York, first edn.
- 873 ——— (1954 [1996]): *History of Economic Analysis*, New York, NY. Oxford University Press.
- 874 SCOTT, A. J. (2000): “Economic Geography: The Great Half-Century,” *Cambridge Journal of Economics*, 24, 483–504.
- 875 SEN, A. K. (1978): “On the Labour Theory of Value: Some Methodological Issues,” *Cambridge Journal of Economics*, 2(2),
- 876 175–190.
- 877 SENN, P. R. (1989): “What Has Happened to Gustav von Schmoller in English?,” *Journal of the History of Economic Thought*,
- 878 11(2), 252–295.
- 879 SKOTT, P., AND S. RYOO (2008): “Macroeconomic Implications of Financialisation,” *Cambridge Journal of Economics*, 32(2), 827–
- 880 862.
- 881 SOMBART, W. (1927): *Der Moderne Kapitalismus*. Dunkler und Humblot, München und Leipzig.
- 882 SUMMERS, L. H. (1991): “The Scientific Illusion in Empirical Macroeconomics,” *Scandinavian Journal of Economics*, 93(2), 129–
- 883 148.
- 884 SWEDBERG, R. (1990): “Socioeconomics and the New ‘Battle of the Methods’: Towards a Paradigm Shift?,” *Journal of Behavioral*
- 885 *Economics*, 19(2), 141–154.
- 886 ——— (1999): “Max Weber as an Economist and as a Sociologist,” *American Journal of Economics and Sociology*, 58(4),
- 887 561–582.
- 888 THEIL, H. (1957): “A Note on Certainty Equivalence in Dynamic Planning,” *Econometrica*, 25(2), 346–349.
- 889 VELTHUIS, O. (1999): “The Changing Relationship between Economic Sociology and Institutional Economics,” *American Journal*
- 890 *of Economics and Sociology*, 58(4), 629–649.
- 891 VON MISES, L. (1962): *The Ultimate Foundation of Economic Science*, chap. The Activistic Basis of Knowledge, pp. 27–33. Van
- 892 Nostrand, first edn.
- 893 ——— (1963 [1996]): *Human Action: A Treatise on Economics*. Fox & Wilkes, San Francisco, 4th revised edn.
- 894 ——— (1976): *Epistemological Problems of Economics*. New York University Press, New York, NY.
- 895 VON SCHMOLLER, G. (1883): *Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft im Deutschen Reich* chap. Zur Methodolo-
- 896 gie der Staats- und Socialwissenschaften, pp. 974–994. Leipzig.
- 897 WAGEMANN, E. (1930): *Economic Rhythm: A Theory of Business Cycles*. McGraw Hill, New York, NY, 1st edn.
- 898 WEBER, M. (1927 [1949]): *The Methodology of Social Sciences* chap. ‘Objectivity’ in Social Science and Social Policy, pp. 50–112.
- 899 The Free Press, New York.
- 900 WEIPPERT, G. (1962): “Sombarts Verstehenslehre,” *Kyklos*, 15(1), 183–203.