

Institutions as Knowledge Capital Ludwig M. Lachmann's Interpretative Institutionalism

Foss, Nicolai J.; Garzarelli, Giampaolo

Document Version Final published version

Publication date: 2006

License CC BY-NC-ND

Citation for published version (APA): Foss, N. J., & Garzarelli, G. (2006). Institutions as Knowledge Capital: Ludwig M. Lachmann's Interpretative Institutionalism. Center for Strategic Management and Globalization. SMG Working Paper No. 16/2006

Link to publication in CBS Research Portal

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy
If you believe that this document breaches copyright please contact us (research.lib@cbs.dk) providing details, and we will remove access to the work immediately and investigate your claim.

Download date: 28. Aug. 2022











Institutions as Knowledge Capital: Ludwig M. Lachmann's Interpretative Institutionalism

Nicolai J. Foss Giampaolo Garzarelli

SMG WP 16/2006

Oktober 2006

SMG Working Paper No. 16/2006

Oktober 2006

ISBN: 87-91815-34-7

Center for Strategic Management and Globalization Copenhagen Business School Porcelænshaven 24 2000 Frederiksberg Denmark www.cbs.dk/smg

Institutions as Knowledge Capital: Ludwig M. Lachmann's Interpretative Institutionalism

Nicolai J. Foss

Center for Strategic Management and Globalization Copenhagen Business School Porcelænshaven 24, 2nd fl.; 2000 Frederiksberg; Denmark njf.smg@cbs.dk

and

Department of Strategy and Management Norwegian School of Economics and Business Administration Breiviksveien 40; N-5045; Bergen; Norway

Giampaolo Garzarelli (corresponding author)

School of Economic and Business Sciences University of the Witwatersrand, P. Bag 3 WITS 2050, Johannesburg, South Africa

garzarellig@sebs.wits.ac.za Tel: +27.11.717-8128

Fax: +27.11.717-8081

and

Dipartimento di Diritto dell'Organizzazione Pubblica, Economia e Società University of Catanzaro, Catanzaro, Italy

September 28, 2006; forthcoming, Cambridge Journal of Economics

Acknowledgments:

We thank Roger Koppl, Peter Lewin, Jochen Runde, and Bjørn Thomassen as well as seminar participants in the Lachmann Room at the School of Economic and Business Sciences at Wits on September 20, 2006 for feedback. We are also grateful for the comments of an anonymous reviewer of this journal. The second author would like to thank Copenhagen Business School for its support and hospitality in January 2005.

Institutions as Knowledge Capital: Ludwig M. Lachmann's Interpretative Institutionalism

Abstract

The paper revisits the socioeconomic theory of the Austrian School economist Ludwig M. Lachmann. By showing that the common claim that Lachmann's idiosyncratic (read: eclectic and multidisciplinary) approach to economics entails nihilism is unfounded, it reaches the following conclusions. (1) Lachmann held a sophisticated institutional position to economics that anticipated developments in contemporary new institutional economics. (2) Lachmann's sociological and economic reading of institutions offers insights for the problem of coordination. (3) Lachmann extends contemporary new institutional theory without simultaneously denying the policy approach of comparative institutional analysis. (90 words.)

Keywords

Comparative institutional analysis, coordination, expectations, institutional evolution, interpretative institutionalism.

JEL Codes

B31, B52, B53, D80.

1. Introduction

To this day, the principal substantive socioeconomic contribution of the Austrian School economist Ludwig M. Lachmann (1 February 1906 – 17 December 1990) remains to many ambiguous at best.¹ Aside from perhaps a few specialists, those who are aware of Lachmann's work seem to have difficulties with it and in the main consider it as a minor disturbance in the otherwise smooth development of the theoretical trajectory of modern economics from Arrow and Debreu (1954). Langlois (1986a: 171) synthesises this dominant conception of Lachmann's contribution well when he writes that

Lachmann [was] the scourge of determinism, the apostle of disequilibrium, the prophet of the kaleidic. Thus, in many, if not most, eyes, [his] role appeared as that of gadfly – or, at best, of methodological conscience – to his fellow theorists. His [was] the salutary albeit annoying task of reminding us that the future is unknowable, that expectations must diverge, and that there are forces of discoordination as well as of coordination.²

Lachmann was indeed an economist who insisted that capital was essentially a subjective (rather than physical) category and therefore could not be aggregated and measured; who promoted a radical subjectivism derived from post-Keynesian economist George Shackle (1972); who fused this radical subjectivism with the thoughts of interpretative sociologist Alfred Schütz and the German interpretative movement in philosophy and sociology, and who introduced Edmund Husserl's phenomenology to economics discourse. What is more, that same – purportedly Austrian – economist thought approvingly of John Maynard Keynes and Paul Davidson, especially because of their critiques of equilibrium theory (Lachmann, 1971, 1978[1956], 1986). What does one do with such a type?

Usually, such types are christened "idiosyncratic" or even "nihilistic". Clearly, Lachmann was idiosyncratic if by that is meant that he stayed far away from the mainstream in economics,³ borrowed ideas from other disciplines (notably sociology),

For overviews of Lachmann's life and work see, e.g., Grinder's "Introduction" to Lachmann (1977a), Mittermaier (1992), Boettke (1994), Lavoie in Lavoie (1994: 1-19), Vaughn (1994: chapter 7), Koppl and Mongiovi (1995), and Laurence Moss (2004); an online Lachmann biography penned by one of his students – Peter Lewin – is available at http://www.mises.org/content/Lachmann.asp

Quoting Shackle (1972: 76), Lachmann often uses the metaphor of the kaleidoscope in juxtaposition to that of the clock. For example: the "kaleidic society [intersperses] its moments or intervals of order, assurance and beauty with sudden disintegration and a cascade into a new pattern" (Lachmann 1986: 48). The Appendix to Lachmann (1986: 157-65), which essentially discusses Keynes's subjectivism, is the English translation of an article originally published in 1984 in German entitled "The Market is not a Clockwork." For some context on the matter, see Garrison (1987).

Of course, what was the "mainstream" in Lachmann's times may not be today's. See Colander, Holt and Rosser (2004), which claims that today's mainstream is no longer orthodox.

and used these to develop his own approach to subjectivist economics. We can all agree that he was idiosyncratic in this sense. But, as we argue in this paper, Lachmann was no nihilist. In this regard, let us flag at the outset that in the context of discussing and criticizing Lachmann's ideas the term "nihilist" refers to Lachmann's scepticism as to whether the market system is *inherently* equilibrating; not to the more familiar denotation of a person who denies that any prescriptive ethics is possible and desirable. As such, Lachmann's position stands against a central tenet of the Austrian School of economics, as perhaps most meticulously expounded by Kirzner (1973).⁴

Critics thus argued that Lachmann's insistence that, since future actions are based on future knowledge and since future knowledge cannot be had beforehand, the future is inherently unpredictable, is tantamount to negating the possibility for rational, future-oriented action. That is to say, within Lachmann's theoretical system it would be impossible, the critics asserted, for rational decisions to be made. Social interactions would display no systematic tendencies, no causal laws – no *order*, in short.⁵

Now, one may retort that the existence of genuine uncertainty does not at all mean that we are somehow cut off from analyzing the emergence of ordered states.⁶ Indeed, at least since Alchian (1950) we have known that we can also rely on evolutionary forces as the relevant order-producing forces (cf. also Langlois and Koppl, 1991). However, there is a limit to how much we can do this – some measure of rationality has to be claimed for any tendency towards equilibrium to exist. Thus, there must be *some* agents who react in a rational (which is not to say perfect) way to relative price signals and arbitrage opportunities, as Kirzner (1962) clarified. Cutting the basis for rational action completely away would mean chaos. That much is certain; but was it what Lachmann argued in favour of?

It cannot be denied that Lachmann flirted with what the majority of contemporary economists, including Austrian economists, would regard as rather extreme ideas (e.g., Lachmann, 1976). However, the reason Lachmann is no nihilist is because he "anchors" knowledge and expectations in institutions, that is, in the conventions, mores, norms, laws, etc. of society. More precisely, Lachmann explains how it is our stylized conceptions of each other and of social phenomena – which in time become anchored in institutions – that simplify our action in society (Schütz, 1972[1932]; Lachmann, 1971). His overall aim can thus be described as the wish to build an institutional economics that is grounded in the *Verstehende Sociozologie* (sociology of understanding) of Max Weber and Alfred Schütz – an *interpretative institutionalism*, as it were (Lachmann, e.g., 1971, 1977b[1966], 1991).⁷

For example: Lachmann's "colleagues and friends [at New York University] did apparently (and presumably in good spirit) dub him a nihilist. But while he liked the label *Radical Subjectivist*, he did not consider himself to be a nihilist. There was another [namely, a historical and institutional] dimension to his intellect which gave him a quite different perspective on the question of what economists should do" (Mittermaier 1992: 18; original emphasis).

⁵ Cf. Lavoie in Lavoie (1994: 1-2).

⁶ Cf. Langlois (1986a).

In an important recent contribution, Koppl (2002: 8) identifies *the* central "Lachmann problem" as "the need for a theory of expectations in which each person's actions are animated by the spontaneous

We shall argue that this interpretative institutionalism is Lachmann's important contribution. To do so, we will try to free Lachmann of the charge of nihilism by arguing that he developed a perspective on institutions and on how institutions assist action in society through time. This institutional perspective – though within the Austrian tradition and with some affinities with new institutional economics – in important ways must be considered a distinctive approach.⁸ It is precisely by pointing to the presence of institutions in Lachmann's thinking that we will be able to free him of the above charges, for institutions stabilize the social landscape by stabilizing actions and expectations. Hence, there is not necessarily an inconsistency in Lachmann's thinking: it is possible to be sceptical as to whether the market process is everywhere and always equilibrating, and at the same time argue that there is order on account of the role of institutions as stabilizing factors.

Our search for what we consider to be the essence of Lachmann's thought is therefore not merely motivated by doctrinal concerns, but by theoretical ones as well. As we shall additionally see, to Lachmann institutions are ultimately that intersubjectively and intertemporally understood *knowledge capital* that allows us to coordinate, align or orient our actions, expectations or plans with some measure of success. Indeed, Lachmann also informs us that all agents ascertain the meaning of institutions, that is, that they hold (sometimes even unconsciously) a mental model of how a particular institution works (or not).

2. Knowledge and Expectations

For Lachmann, as for most economists, the essential feature of economics is the exploration of purposeful action and the examination of the consequences of the interaction of multiple acting individuals. The mainstream economist will not necessarily disagree; but mainstream economics adopts it own conception of what "purposeful action" and "interaction of multiple acting individuals" mean. Thus, the meaning of the first phrase is captured by postulating utility maximizing behaviour (which also underlies profit maximizing behaviour); the second meaning is captured by claiming that social interaction – the aggregation of behaviours – can be represented in terms of equilibrium. In much of mainstream economics, the two levels of analysis, that of the individual and that of interaction, are conflated by focusing attention on a representative agent.9

activity of a free human mind". Koppl's analysis is very much congruent with our own. But whereas Koppl focuses on both coordination (the role of institutions) and discoordination (disruptions by so-called Big Players), we mostly focus on coordination.

By new institutional economics we have in mind the body of modern literature that uses economic tools to analyze real-world institutions by means of the method of comparative institutional analysis, such as Coase (1960), North (1981), Williamson (1985), Langlois (1986a,b, 1992), and Eggertsson (1990).

In situations of interaction (think, e.g., about principal-agent analysis) the problem is (as hinted) in actual fact no different, for the parties involved are postulated to share many of the important attributes, e.g., share the random variable and the density function of the probability distribution. Identically to its profit maximizing counterpart, there is a loss of genuine population thinking: one

To the Austrian economist, this standard analytical procedure is, at best, limiting, since it effectively suppresses many, perhaps most, interesting economic problems, not the least all sorts of coordination problems. And it is in fact hard to think of any economist as far removed from the representative agent methodology as Lachmann (e.g., 1986: chs 2 and 3). To Lachmann, understanding the meaning of "purposeful behaviour" must involve thinking in a sophisticated way about thought processes, about the interpretations of agents, about how individual knowledge grows and changes, etc. And doing this must surely lead to a complete rejection of extreme representative agent methodology, for it cannot but lead us to the recognition that diversity in terms of the knowledge people hold, how the process of knowledge acquisition take place, etc. is a crucial feature of the economic landscape.

Indeed, if taken seriously, the doctrine of methodological individualism leads to a thoroughgoing subjectivist position (cf. Langlois, 1986d). And as Lachmann was furthermore eager to emphasize, a thoroughgoing subjectivist position is rather naturally correlated with an interpretive method. In fact, he argued that "the main contribution the Austrians made to the 'subjective' revolution of the 1870s ... [lies] ... in the 'interpretative turn' ... [that] they managed to impart to the evolution of economic thought at that critical period" (Lachmann, 1991: 277).

Though methodological individualists, mainstream economists have not followed the subjectivist and interpretative implications of the individualist stance. Moreover, the representative agents are cognitive supermen, being able to solve maximization problems with a Lagrangian the size of a phone directory. All this is defended, of course, by an Ockham's razor argument: by pointing to the useful predictions that these "simplifying assumptions" allow. To Lachmann (e.g., 1986: ch. 2), however, these are not "simplifications," but gross distortions. As a result, the portrayal of human action to be found in mainstream economics represents a too serious affront to realism. 12

Lachmann additionally asserts that "... time and knowledge belong together. As soon as we permit time to elapse, we must permit knowledge to change. The pattern of knowledge never stands still" (Lachmann, 1978[1956]: 3).¹³ Mainstream economics actually telescopes this time-knowledge problem that Lachmann sees as central: in practice, it lets time elapse without allowing knowledge to change. This is

assumes agents having the same characteristics and then sums these characteristics up to obtain the representative agent; rather than assume agents with different characteristics and build up from that. See for example the Marshallian population thinking versus Pigovian representative firm thinking discussion of industry composition in Moss (1984) and O'Brien (1984).

- A legacy that is arguably traceable to the famous "F-twist" by Milton Friedman: the belief that one should not worry about a theory's assumptions, but about its *predictable* conclusions. Lachmann's critique of such instrumentalist method is in Lachmann (1971: 27 and 35).
- In fact, Lachmann follows Shackle in thinking that "human re-action" would be a more fitting expression for economic action as portrayed by the mainstream. See for example Lachmann (1973: 19).
- Philosophers would call Lachmann a *representational realist*: it "does matter which features of reality we accentuate in our schemes, and which we abstract from" (Lachmann, 1986: 42).
- In more than one contribution, Lewin (e.g., 1994: 239) refers to this as "Lachmann's axiom."

what lies at the heart of the search for predictability, of single exit reasoning. But predictability is inherently problematic, since predicting individual actions and/or future aggregate states would imply predicting the knowledge on which actions are based. And it is a well-known epistemological impossibility theorem that future knowledge cannot be foreseen (in details); if it could, it would cease to be future knowledge and would turn into present knowledge.¹⁴

Lachmann also rejects mainstream attempts to actually model changing knowledge with the argument that if "we were to include the state of knowledge in our model ... [w]e should have to introduce it either as a datum or as a dependent variable ... to treat it as a dependent variable would mean to treat processes of thought as though they were predictable" (Lachmann, 1986: 28). No two minds acquire and process knowledge in the same way (Op. cit.: ch. 3).

But do differences in individual learning also imply that individual expectations will also always differ? Not necessarily, answers Lachmann (1976: 59):

The future is unknowable, though not unimaginable. Future knowledge cannot be had now, but it can cast its shadow ahead. In each mind, however, the shadow assumes a different shape, hence the divergence of expectations. The formation of expectations is an act of our mind by means of which we try to catch a glimpse of the unknown. Each one of us catches a different glimpse. The wider the range of divergence the greater the possibility that somebody's expectation will turn out to be right."

Notice how Lachmann's message in this passage is far from being nihilistic. Although future knowledge cannot be obtained, expectations in the sense of reasoned conjectures are still possible. Thus, individual rationality in the general sense of having reasoned expectations and motives for behaviour and acting on these is possible notwithstanding a radically subjectivist position. What is perhaps more interesting is that the passage reveals that systemic rationality is also a possible substitute for individual rationality, because there is an allusion to an innate evolutionary mechanism that sorts among divergent expectations ("The wider the range..."). The passage thus shows that it is incorrect to assert that Lachmann propounded the view that action is random, or whimsical at best, and that there are no possible social regularities.

This notwithstanding, what many commentators have taken from Lachmann's thinking are not these more positive facets as rather the devastating effects for most of mainstream economics if his ideas were suddenly to be taken seriously. That is to say,

An evolutionary reasoning per se puts into question any "F-twist" reasoning, for it questions the assumption that survival in any landscape must necessarily imply maximizing behaviour in every point in time – see the classic contribution by Winter (1964).

As Knight synthesized it, the "existence of a problem of knowledge depends on the future being different from the past, while the possibility of the solution of the problem depends on the future being like the past" (Knight, 1946[1921]: 313). Another *locus classicus* of the notion that we cannot anticipate future knowledge is the work of Karl Popper. In general, compare O'Driscoll and Rizzo (1985).

the critiques were often rooted in the sociology of the profession, for reasons of self-preservation of the *status quo* of the discipline, and not necessarily for inherent fallacy of argument. It should then not be too surprising that Lachmann was by many placed in the "nihilist" category.

But *does* Lachmann ultimately truly paint himself into a corner? Or does Lachmann actually try to offer a concrete alternative to mainstream economics? It may very well be, in our view, that Lachmann has not attacked and demolished a well-established theory of the order-producing properties of markets: Lachmann tried to stimulate the development of a different approach.

3. Lachmann, Interpretation, and Institutions

To our knowledge, Lachmann was not aware of modern developments in new institutional economics.¹⁷ However, he presents a quite acute critique of the treatment of institutions in mainstream economics that is in on an overall level akin to that presented by modern new institutionalist scholars, such as North (1981), Williamson (1985), and Langlois (1986a,c,d; 1992). Of course, there are differences, because the new institutionalists mainly emphasize the incentive aspect of institutions (e.g., North, 1990), whereas Lachmann emphasized the cognition dimension of institutions. Moreover, while new institutionalist scholars have usually subscribed to single-exit modelling of agents, Lachmann's thought is at variance with this approach.¹⁸

The objective of new institutional scholars is, of course, to offer an economic theory of social institutions, such as mores, customs, markets, laws, firms, etc. A social institution may generally be understood as a regular pattern of behaviours exercised by a group of individuals. For present intents, however, a more informative definition is appropriate. A (formal and informal) social institution is a form of knowledge that some (institutionalized) group of individuals usually conforms to (even unconsciously) in order to carry out purposive action, and that if not conformed to generally leads to welfare losses for the group as a whole (*inter alia*, Schotter, 1981; Rowe, 1989). As a result, an institution has a double role, a positive and a negative one. The positive role

The issue is almost reciprocal: to the best of our knowledge, the only new institutionalist who is aware of Lachmann's institutional contribution is Langlois (1986a, 1992).

For instance, there may be a limited role for the central notion of equilibrium if the rationality of actors is assessed in terms of knowledge adaptations to contingencies as opposed to the axiomatic optimization framework in which all action is considered costless and instantaneous.

Thanks to an anonymous reviewer for pointing this out. For excellent discussions of single and multiple-exit modelling, see Langlois (1986b) and Langlois and Csontos (1991). And see O'Driscoll and Rizzo (1985; chapter 3) for a discussion in a Lachmannian spirit of whether there can be non-deterministic situational analysis of economic agents.

Another definition of an institution would also consider ontology: it would stress the constitutive elements and filtering mechanisms that demarcate the nature of an institution as an ensemble of rules (which may or may be not known explicitly) in order to more crisply identify its uniqueness in relation to other social structures. For our purposes we need not enter the ontology of institutions, but for an elaboration, see Searle (2005) and Lewis and Runde (2006, in press).

concerns the ability of an institution to elicit some generally-accepted rule following behaviour. The negative role concerns the ability of an institution to punish behaviours that contradict generally followed rules.

Notice, however, that both roles are essentially complementary, if not in truth symbiotic. That is, they both hint to the fact that one distinguishing mark of an efficacious social institution is the ability to yield cost savings in conscious ratiocination. The double role of institutions aids our limited cognition: by simplifying social reality by means of rule-following and reliability in enforceability of rules, institutions make the calculation of expected return to purposive human action much simpler.²⁰ Lachmann shares two points with such a new institutional view of economics that sees an institution as both a behavioural aid and a behavioural constraint. The first is that mainstream conceptions of institutions such as firms and markets ignore the positive cognitive role that such institutions play, that is, their ability to coordinate different expectations through time is downplayed, and all attention is focused on how these institutions may align incentives. Second: simultaneously, the recognized negative role of institutions to enforce commitments is often taken as exogenous. To be more specific, in mainstream analyses the comparative ability of different types of institutions to have different enforceability properties (e.g., respect balanced budgets, limit shirking, etc.) is often taken for granted and not studied. This is so because the origin and persistence of institutions are not studied.²¹ Yet Lachmann's institutional gestalt differs from both the mainstream and new institutional approach along one dimension: neither the mainstream nor the new institutional approach generally consider the interpretive dimension of institutions (Lachmann, 1991: 283).

It is precisely such emphasis on "meaning" that represents the other influence on – that is, in conjunction to Austrian economics – Lachmann's institutional perspective. The emphasis derives from the *Verstehende Sociozologie* of Max Weber and Alfred Schütz. To consider Lachmann's stance we need to quickly consider the influence of these scholars on Lachmann in reverse order.²²

3.1. Alfred Schütz and the Meaning of Institutions

By participating in the Mises-Kreis, Schütz was both influenced by and, more to the point, influenced Austrian economists. As Prendergast (1986: 11) writes, "... marginalism lacked a credible theory of intersubjective understanding; it had no way of showing how economic actors knew the motives of other actors, short of assuming universal motivation discernible by introspection. On the other hand, it lacked a viable

Langlois (1986a: 175) neatly ties positive and negative roles around the central notion of entropy: a "social institution ... is a mechanism to reduce the entropy of the environment."

This paper is not the place to expand on this interesting matter, though we will return to it in a roundabout way in Section 4 below. See, for example, Langlois (1986d) and Koppl (1992).

Our order of consideration is in reverse not just because Schütz's contribution is subsequent to that of Weber, but also because Lachmann himself studied Schütz much later than he studied Weber; see Koppl (1994: 295-6).

theory of concept formation. ... Schütz's genius lay in seeing Weber's ideal type as a solution."²³

Now, knowing "the motives of other actors" is evidently knowledge that allows you to coordinate your actions with those other actors – but this knowledge of "the others" comes in different forms. In fact, Schütz (1972[1932]) develops a whole theory of intersubjective understanding. The starting point of his theory is that there is a pregiven social "life-world" into which we are socialized and which consists of typifications: all "interpretation of this world is based on a stock of previous experiences of it, our own or those handed down to us by parents or teachers; these experiences in the form of 'knowledge at hand' function as a scheme of reference." The "unquestioned pre-experiences are ... at hand as typical, that is, as carrying open horizons of anticipated similar experiences" (Schütz, 1962: 7-8).

Thus, many typifications are socially constructed. Usually, the more anonymous and standardized ideal types are – in terms of laws, regulations, customs, habits, etc. – the more distant they are from the individually constructed level. Schütz places such conceptualization within a theory of intersubjective understanding that is in turn divided into three parts: the "we-relationship", the "thou-relationship", and the "they-relationship". The underlying social reality is one of "objective" meaning-contexts that are shared by all in society.

In the we-relationship, actors are not only aware of each other, but also know that this awareness exists. Communication allows them to understand their respective meanings, and comprehensively identify each other's motives. In the thou-relationship, the observer is aware of the actor, but no reciprocal awareness exists. Here direct communication is blocked, so understanding the meanings of the actions of the observed party involves more 'objective' and more anonymous categories of meaning (for example, the meaning contexts within which a postal clerk 'normally' operates), but not only these. However, in the most anonymous relationship, the they-relationship, in which we try to understand the actions and meanings of anonymous others, we must have recourse to ideal types only; specifically to types of the "course-of-action" type or the "personal" type. The first type refers to the imputation of certain "typical" motives to certain actors (for example, businessmen maximize profits), so that we may deduce what will follow with high probability given these motives. The personal type refers to individuals functioning in roles.

Thus, typifications bring predictability, and therefore ease action, by ascribing *meaning* to institutions, precisely what Lachmann (1971, 1991) had criticized mainstream economics for not allowing. But, as Schütz also points out, acting in the lifeworld is not unproblematic, primarily because anticipations are formed in terms of typicality. Thus, our expectations are broad and open-ended, waiting to be "filled out" as time goes by (cf. also O'Driscoll and Rizzo, 1985). Lachmann fills the emptiness of

There is a revival of interest, especially in the Austrian circles, in Schütz. See for example the 2001 issue of the *Review of Austrian Economics: Special Issue on Alfred Schütz* 4(2-3): September, edited by Boettke and Koppl. In an intriguing recent article, Koppl and Whitman (2004) demonstrate that in economics the hermeneutic and the rational choice approach are not only perfectly compatible but also complementary.

expectations by changing the central element of social scientific investigation from ideal type to plan.

3.2. From Ideal Type to Plan - or, Max Weber Modified

Lachmann's most complete institutional statement is the *Legacy of Max Weber* (1971), a three essay-collection on Weber. And though his statement is inspired by Weber, Lachmann explicitly rejects Weber's notion of ideal type (*Idealtypus*) in favour of the notion of *plan*. This is so because "Weber's ideal type lacks any specific reference to human action and seems to be as readily applicable to the animal kingdom or the plant world as to the human sphere." The notion of plan instead is "germane to human action," for it "constitutes the natural centre of the method of interpretation"; further, "most of the other concepts we need in order to give an account of human action and its results can be derived from it" (Lachmann, 1971: 29).²⁴

Endorsing the method of interpretation through the notion of plan does not at the same time mean regressing social science to the period of the *Methodenstreit*. Allow us to quote from a relevant passage at length. We

come to the question whether the method of interpretation may be employed beyond the borders of history, namely in the analytical social sciences. ... The answer to this question is in the affirmative. ... It is true that in explaining recurrent patterns of action, the essential subject-matter of all social sciences, we cannot provide such explanation in terms of purposes, as elements of plans, because the purposes pursued by millions of people are of course numbered in millions. But often we are none the less able to provide explanations in terms of the elements common to all these plans, such as norms, institutions. and sometimes institutionalized behaviour. maximization of profits, or the avoidance of the risk of insolvency. As long as we are able to account for the recurrence of patterns of action in terms of such elements of plans, we are successfully employing the classical method of interpretation. We are still explaining subsequent events in terms of ideas. Moreover, the line that divides concrete historical phenomena from permanent social structures is notoriously thin. ... The plain fact is that every recurrent pattern of events, anything we should feel at all entitled to call a 'structure', requires explanation in terms of permanent forces as well as in terms of

-

In some ways, as Lewis and Runde (2006, in press) also note, if taken literally the emphasis on plan may overestimate the importance of behaviour that issues from conscious deliberation. Tacit knowledge may also play an important role in human action. Relatedly, it may be the case that the notion of plan in Lachmann loses the anonimity property that is instead a useful heuristic expedient of the Weberian ideal type (see Koppl [1994] and Koppl and Whitman [2004]). This notwithstanding, our primary objective here is to attempt to read Lachmann on his own terms, that is, we are trying to use the *interpretative* method on Lachmann himself: Lachmann saw himself as trying to bring back in purposeful human agency in a discipline that (he saw) was losing it.

concrete historical circumstances. Interpretation is needed in the former as well as in the latter type of explanation (Op. cit.: 22-3).

Referring essentially to modern economies, that is, to economies with a sophisticated division of labour, Lachmann moreover argues that the success of any plan depends on the actions of other agents. As such, environmental constraints do not only refer to physical and technological constraints, as in, for example, the works of David Ricardo, but also to the constraints posed by other purposeful actors each pursuing his or her own plan. As a result, institutions – which, exactly as in the new institutional tradition, "are at the same time instruments of, *and* constraints upon, human action" (Op. cit.: 141; original emphasis) – help realize plans by reducing the volatility in the plans of other agents.²⁵ In Lachmann's (very early) words,

as social scientists ... we are concerned ... [not] ... with ... individual acts but mass-phenomena. Mass-phenomena have to be made intelligible by reference to the similarity of the conditions under which different individuals have to act. The conditions the similarity of which makes different individuals, who are subject to them, act in an identical manner, may be either of a subjective (psychological) or an objective (institutional) nature. ... Men may act identically, either because they are subject to the same mass-psychological influences or because they all have to operate within the same institutional framework. As our knowledge of mass-psychology is rather scanty compared with our comprehensive cognition of institutions and the way they work, it might be useful to lay down as a preliminary rule that if ... a mass-psychological and an institutional hypothesis come to compete for the role of 'cause', preference will be given to the latter (Lachmann, 1937: 296).²⁶

On this conceptualization, Lachmann's thought exhibits no discontinuity. And this indirectly reinforces our perception that Lachmann was not a nihilist, for continuity in thought leaves little room for ambiguity of interpretation. Consider directly the following, later reformulation by Lachmann.

Lewin (1999) pursues this Lachmannian theme from the point of view of the capital stock, where Lachmann (1978[1956]) also made clear how the inherent capital stock presents us with opportunities and with constraints and that we have to take account of both.

In some ways, this passage has a nonAustrian flavour to it, particularly what seems to be a restatement of the sociological argument that institutions may somehow be efficient causes of action. But Lachmann has not endorsed (here or elsewhere) Emile Durkheim. As a result, Lachmann's point about institutions may, as noted, be interpreted differently, namely, to mean that while they do not cause behaviour, they influence choice by making available information that would not available in their absence. In fact, this is precisely the reason why Lachmann wrote his book on Weber. For a realist social theory take on the matter, compare Lewis and Runde (2006, in press).

An institution provides a means of orientation to a large number of actors. It enables them to coordinate their actions by means of orientation to a common signpost. If the plan is a mental scheme in which the conditions of action are coordinated, we may regard institutions, as it were, as orientation schemes of the second order, to which planners orientate their actions to a plan. ... The existence of such institutions is fundamental to civilized society. They enable us to rely on the actions of thousands of anonymous others about whose individual purposes and plans we know nothing. They are nodal points of society, coordinating the actions of millions whom they relieve of the need to acquire and digest detailed knowledge about others and form detailed expectations about their future action (Lachmann, 1971: 49-50).

More on this in what follows.

4. Meaning, Coordination, and Asynchronous Institutional Evolution

Institutions "prescribe certain forms of conduct and discourage others. It is clear that those persons who conduct themselves in conformity with them must attribute some *meaning* to them." Thus, a "... more satisfactory treatment of institutions in economics ... will call for the infusion of a sizeable dose of the hermeneutic spirit" (Lachmann 1991: 282). This quote synthesises the Lachmannian stance that avoids complete lack of predictability and order. That is, it epitomizes what we believe to be the genuine Lachmann stance, which is not nihilistic.

By not falling into the nihilist trap, Lachmann, in fact, achieves an important shift in the the object of analysis. He asserts, as we saw, that the coordination of subjective expectations is the problem that economics should primarily focus on. But at the same time he is also aware of the fact that if we place subjective expectations as such at centre stage, it is possible to fall into an infinite regress situation; in different terms, we would be in the presence of a situation where lack of order, stability or equilibrium would be normal. In such a situation, the social scientist would need to know not only general trends in the consequences of actions, but also the minute details attached to the consequences of such actions – not to mention all the plans that lead to all actions in the first place.²⁷ But if we think of institutions as lighthouses that guide action, then the problem of infinite regress

-

Specifying that Lachmann is borrowing from Sir John R. Hicks, Garrison (1986: 92, footnote omitted) reports a nice image. "Suppose an increase in the supply of fish results in a lower price for fish. Expectations that the price of fish will soon return to its previous level will cause demand to increase as buyers attempt to take advantage of an opportunity that is perceived to be temporary. Expectations that the price of fish will continue to fall will cause the demand to decrease as buyers wait to take advantage of an even better opportunity in the future. As Lachmann himself often recognizes, it is possible to categorize expectations as being either inelastic or elastic with respect to price changes. However, it is another matter to predict which will be the case in a particular instance."

disappears, for both we and social actors have an objective point of "orientation", as Lachmann repeatedly says.²⁸

It "is clear that ... studies ... concerned ... with human action ... require a different method of approach to their objects" than those of the natural sciences. This method is the "praxeological method." According to such method, human "action is not determinate, but neither is it arbitrary", i.e., completely unpredictable and disorderly. This method

is bounded, firstly, by the scarcity of the means at the disposal of actors. This circumstance imposes a constraint on the freedom of action. It is bounded, secondly, by the circumstance that, while men are free to choose ends to pursue, once they have made their choice they must adhere to it if consistent action with a chance of success is to be possible at all. In other words, human action is free within an area bounded by constraints. Obstacles of various kinds further limit the area of freedom. The praxeological method has to take these circumstances into account. Causal explanation in the field of action cannot hope to attain determinateness, but this does not mean that we must give up all hope of explanation. ... Orientation thus emerges as a concept as fundamental to praxeological study as determinateness is to natural science. As the latter requires a 'closed' analytical system, consisting of functions like independent and dependent variable as well as constants, to warrant the determinate character of its results, so praxeology requires a more flexible form of thought, an 'open' analytical framework which will nevertheless permit us to ascertain the boundaries of action. Orientation is the pivotal concept within this framework (Lachmann, 1971: 37-8; original emphasis).

It is then only natural that "... there are certain super-individual schemes of thought, namely *institutions*, to which the schemes of thought of the first order, the plans, must be oriented, and which serve therefore, to some extent, the coordination of plans. They constitute, we may say, 'interpersonal orientation tables', schemes of thought of the second order. To them, praxeology, for which until now the plan and its structure have understandably occupied the foreground of interest, will increasingly have to turn in time to come" (Lachmann, 1977b[1966]: 62; original emphasis).

Institutions, in essence, are structures that facilitate human action: they assist in partially solving the societal coordination problem. So, agents (including social scientists) do not have to be able to read each other's minds to pursue most of their actions. They are able to plan and adjust plans in a relatively coordinated way because

Compare a more modern statement. "Institutions are ... the *filter* between individuals and the capital stock ... and between the capital stock and the output of goods and services and the distribution of income" (North, 1981: 201; added emphasis).

institutions have meaning: to a large extent, institutions are factually an embodiment of the most common plans that, to use a contemporary argot, *have become standardized*.²⁹

But standardization does not take place over night. Personal plans are gradually built up and communicated among generations, that is, they take time to become institutionalized. As a result, they are not susceptible to fast change. The "central problem of the institutional order hinges on the contrast between coherence and flexibility, between the necessarily durable nature of the institutional order as a whole and the requisite flexibility of the individual institution. In other words, this central problem does not become apparent until we come to view the institutional order in the perspective of time." It "is impossible for all institutions to change at the same rate ... the relative immutability of some institutions is always a necessary prerequisite for the relative flexibility of the rest" (Lachmann, 1971: 13-4). Lachmann's theory of institutional evolution requires some elaboration.

The Lachmannian institutional view suggests a division of labour among "mechanisms" of coordination. There are two types of mechanisms to coordinate, says Lachmann. On the one hand, we have individual plans, which are more varied and volatile. On the other hand, we have social level institutions that are less varied and volatile. Social level institutions, in turn, can be *external* and *internal* (Lachmann 1971: 81). The external institutions are the scaffolding necessary for the internal institutions to work: they include the political regime and property rights. These external institutions are the ones that are relatively immutable and that govern and discipline the relative flexibility of internal institutions, such as the firm, the market for wheat and the stock exchange.³⁰

Moreover, Lachmann claims that the most interesting socioeconomic problems arise when external and internal institutions evolve at different rates. Such asynchronous evolution creates the need for new individual plans to obviate the gaps in social institutions. Think of responses in the face of an unconstitutional law. (The evolution of social insitutions can also be disrupted by exogenous factors – e.g., a natural disaster, such as an earthquake or tsunami, or an uncommon terrorist attack, such as 9/11 – that also require the input of individual plans to be addressed.)

Obviously, the emergence of new individual plans to attempt to bring external and internal institutions back into synch can in itself create new institutional gaps that need to be solved. "The businessman, as much as magistrates and judges, must presume the Law to be 'gapless' (*lückenlos* was the German word [that Lachmann] liked to use), but clearly it was not so and the continual flow of legislation in modern times

Standardization can also be interpreted as that part of individual agents' stocks of knowledge at hand that is social in the sense that it consists of shared typifications of the social landscape, that is, as what Schütz, as we saw, called "intersubjective structures of meaning." It is because agents come equipped with an intimate knowledge of their life-world and because much of this knowledge is social rather than private that they are able to coordinate their actions.

Compare also Eggertsson's (1990: Ch. 10) more recent notion of "structural production frontier": essentially an institutional frontier mostly having to do with property rights that co-exists with the more familiar technological one.

must create problems of compatibility and thus more gaps. ... Purposeful action is oriented towards 'the rules of the game' and therefore institutions, while no more determining the outcome of social processes than the rules of chess determine the outcome of chess games, nevertheless reduce indeterminacy in a Kaleidic society." Since everything changes, Lachmann believed that there is "something to be said in each concrete situation" (Mittermaier 1992: 20).

It is thanks to the existence of all three coordinative mechanisms (namely, individual plans and internal and external social institutions) in every point in time that, as society develops, we have at once enablers of and constrains to purposive human action. By acting as the tightest of system constraints (Langlois and Koppl, 1991), the external institutions enable the behaviour at the level of internal institutions and plans. The latter in their turn also act as constraints and enablers, but their task is to coordinate that behaviour that, in time, leads to learning and greater division of labour in society. In other words, external institutions make possible the coordination of divergent expectations by letting internal institutions and plans interact in a looser yet systematic way. Stabilized by external constraints, in time this type of interaction can also lead to the institutionalization of successful plans. The reason why external and internal institutions can evolve at different rates is because they deal with different types of knowledge: the task of the internal is mainly to stabilize individual plans, while that of the external is to stabilize the internal. And yet, there is fluidity among the levels of coordination, for individual plans and internal and external institutions can all influence one another.³¹ See Figure 1 for a stylized illustration of coordination mechanisms in Lachmann, where the different types of dashes stand for both permeability and different rates of evolution.

External Institutions
(Least volatile, most "coherent")

Internal Institutions
(More volatile, more "flexible")

Heterogenous
Individual Plans
(Most volatile, most "flexible")

Figure 1: Lachmann's Coordination Mechanisms

¹ Cf. Langlois (1986a).

Lachmann's economic theory is therefore *not* a nihilistic socioeconomic dogma. It becomes so only if we detach and render timeless the interaction of individual plans from social level institutions, which we claim to be a misinterpretation of Lachmann's message. Differently put, the perception of Lachmann's nihilism – to repeat, the fear that all action may be rendered rudderless by the failure of expectations to be coordinated – could result from the fact that many have tended to (implicitly or otherwise) homogenize the knowledge that constitutes the elements of plans and of internal and external social institutions. If we however acknowledge that in Lachmann knowledge is a actually structured heterogeneity, we realize that at some level expectations are, and must be, coordinated (this is the institutional level) in order that at another level they can be – and indeed must be for a dynamic economy – disparate (this is the individual plan level).³² It is basically for this reason that we suggest to think of social institutions as knowledge capital in Lachmann.

4. Conclusions

The thesis of this paper is that to recognize Ludwig Lachmann's work as being in many ways idiosyncratic because of its very eclectic and multidisciplinary origin *does not* simultaneously mean that he was a nihilist. This thesis yields two lessons of different nature.

First, from a doctrinal viewpoint, there is the lesson in clarification. By returning to the principal influences at the origin of Lachmannian idiosyncrasy, namely, Weberian and Schützian sociology, it clears Lachmann from an accusation of adopting an antiscientific stance. To be more precise, to simultaneously assert, as does Lachmann, that future knowledge is unpredictable and that no two minds will interpret and process information in exactly the same way, does not necessarily mean destroying economic theory and, indeed, social science. Such a "disequilibrium or antiorder always" conclusion is a overly hasty one: it is valid *if and only if* one does not read Lachmann on his own terms. That is to say that if and only if one reads Lachmann as conceptualizing economic interaction in an institutionless world can one coherently uphold such a stance. But such a stance does not do justice to Lachmann's more sophisticated institutional theory. As a matter of fact, such a stance, we show, is doctrinally imprecise. And herein lies our lesson of a second, more substantive, nature.

By trying to read Lachmann on his own theoretical terms, we suggest that his socioeconomic thought contains elements of contemporary new institutional theory. Lachmann often writes that coordination has two levels: individual (plans) and social (e.g., institutions, such as laws, markets, norms, etc.). The two levels are complementary. The social *level recurrent patterns of conduct* are instrumental in realizing individual plans in that they reduce the volatility in the plans of other agents. At the same time, the plans can contribute to change social institutions. Consequently,

-

³² Cf. Lewin (1997, 1999).

the two coordination levels solve the radical uncertainty problem that Lachmann places at centre stage. Fellow Austrian economist, Friedrich Hayek, agrees with such view. It

is ... the views people have formed of each other and of the things, which form the true elements of social structure. If the social structure can remain the same although different individuals succeed each other at particular points, this is not because the individuals which succeed each other are completely identical, but because they succeed each other in particular relations, in particular attitudes they take towards other people and as the objects of particular view held by other people about them. The individuals are merely *foci* in the network of relationships and it is the various attitudes of the individuals toward each other ... which form the recurrent, recognizable and familiar elements of the structure (Hayek 1952: 59).

So much for points of congruency with contemporary new institutional and Austrian theory.

Within the second, substantive lesson there also lies a unique Lachmannian contribution to institutional reasoning. Lachmann informs us that agents ascertain the meaning of social institutions, that is, that they hold (sometimes even unconsciously) an understanding about institutions themselves and these understandings of the roles of different institutions can be intersubjectively and intertemporally shared. Rational individuals understand the role of laws, firms, contracts, and the like. Moreover, most individuals are able to understand the "efficiency" or "inefficiency" of a particular institution (e.g., most workers understand the pliability of their labour market). If this essential hermeneutical twist to institutional analysis were missing, we would, according to Lachmann, not be able to fully understand the coordinative role of institutions. And such deficiency would be tantamount to believing that human purposefulness is, somewhat paradoxically, on a par with that of plant life and automata. To Lachmann, in fact, institutions are ultimately knowledge capital.

Viewed from a different angle, the reader may at this point question the more pragmatic added value of our exercise, for it would seem that we propose a dog-bite-tail policy stance: we would seem to contradict the policy lessons of comparative institutional analysis. That is to say that our interpretation of Lachmann's position would seem to basically imply that our bounds of cognition in the main increase monotonically with an increasing division of knowledge, and that when exceptions to this parallel evolution do occur, allocative (axiomatic optimization-and-equilibrium) intervention is called for.

But if Lachmann did have this in mind, he would not have reverted to the *Verstehen* dimension. Lack of institutional evolution would not need interpretation, for this would imply that all institutions could perform the same function equally well. This would contradict Lachmann's notion of asynchronous institutional evolution. Lachmann in fact introduces the notion that there are two types of social institutions – external and internal – and specifies that the two types, though interacting, may evolve

at different rates. The asynchronous institutional evolution generates an interesting series of socioeconomic issues to be interpreted, investigated, and, when necessary (and possible), solved through the input of individual plans.

In the abstract, then, the policy implication of a Lachmannian institutional approach is not different from that of traditional comparative institutional analysis: the social analyst is able to understand the differences in the efficiency properties of different viable institutional alternatives. But in the detail, the difference lies in ascribing the ability to understand the value of comparative institutional analysis not just to the social analyst, but also to the generalized social actor. This is the sociological contribution of Lachmann to contemporary new institutional economics, unbeknown both to him and to most new institutional scholars. We invite others to more explicitly connect this socioeconomic conclusion with sociology proper.³³

One starting place is Berger and Luckmann (1966: esp. Part 2, Ch.1).

References

- Alchian, Armen (1950), "Uncertainty, Evolution, and Economic Theory", *Journal of Political Economy* 58(3): 211-21(June).
- Arrow, Kenneth J. and Gerard Debreu (1954), "Existence of an Equilibrium for a Competitive Economy", *Econometrica* 22(3): 265-90(July).
- Berger, Peter and Thomas Luckmann (1966), *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, New York: Doubleday.
- Boettke, Peter J. (ed.) (1994), "Symposium: Ludwig Lachmann and His Contributions to Economic Science", *Advances in Austrian Economics* 1: 229-324.
- Coase, Ronald H. (1960), "The Problem of Social Cost", *Journal of Law and Economics* 3(1): 1-44(October).
- Colander, David, Richard P. F. Holt, and Barkely J. Rosser, Jr. (2004), "The Changing Face of Mainstream Economics", *Review of Political Economy* 16(4): 485-99(October).
- Eggertsson, Thráinn (1990), *Economic Behaviour and Institutions*, Cambridge: Cambridge University Press.
- Garrison, Roger W. (1986), "From Lachmann to Lucas: On Institutions, Expectations, and Equilibrating Tendencies", in Kirzner, I. M. (ed.), Subjectivism, Intelligibility and Economic Understanding: Essays in Honour of Ludwig M. Lachmann on his Eightieth Birthday, London: Macmillan: 87-101.
- Garrison, Roger W. (1987), "The Kaleidic World of Ludwig Lachmann", *Critical Review* 1(3): 77-89(Summer).
- Hayek, Friedrich A. von (1952), *The Counterrevolution of Science*, reprint 1979, Indianapolis: Liberty Press.
- Kirzner, Israel M. (1962), "Rational Action and Economic Theory", *Journal of Political Economy* 70(4): 380-385(August).
- Kirzner, Israel M. (1973), Competition and Entrepreneurship, Chicago: University of Chicago Press.
- Knight, Frank H., (1946), *Risk, Uncertainty and Profit*, London, London School of Economics and Political Science (Re-issue No. 16 in a Series of Reprints of Scarce Tracts in Economics and Political Science). First published 1921.
- Koppl, Roger (1992), "Invisible-Hand Explanations and Neoclassical Economics: Toward a Post Marginalist Economics", *Journal of Institutional and Theoretical Economics* 148(2): 292-313.
- Koppl, Roger (1994), "Lachmann on Schütz and Shackle", *Advances in Austrian Economics* 1: 289-301.
- Koppl, Roger (2002), *Big Players and the Economic Theory of Expectations*, London and New York: Palgrave Macmillan.
- Koppl, Roger and Gary Mongiovi (1995), "Introduction", in Koppl R. and Mongiovi G. (eds.) *Subjectivism and Economic Analysis: Essays in Memory of Ludwig M. Lachmann*, London: Routledge: 1-11.
- Koppl, Roger and Douglas Glenn Whitman (2004), "Rational-Choice Hermeneutics", *Journal of Economic Behaviour and Organization* 55(3): 295-317(November).

- Lachmann, Ludwig M. (1937), "Uncertainty and Liquidity Preference", *Economica*, N.S., 4(15): 295-308(August).
- Lachmann, Ludwig M. (1971), *The Legacy of Max Weber*, Berkeley: The Glendessary Press.
- Lachmann, Ludwig M. (1973), *Macro-economic Thinking and the Market Economy: An Essay on the Neglect of the Micro-foundations and Its Consequences* (Hobart Paper 56). London: Institute of Economic Affairs.
- Lachmann, Ludwig M. (1976), "From Mises to Shackle: An Essay on Austrian Economics and the Kaleidic Society", *Journal of Economic Literature* 14(1): 54-62(March). (Also reprinted in Lavoie 1994.)
- Lachmann, Ludwig M. (1977a), Capital, Expectations and the Market Process: Essays on the Theory of the Market Economy (edited with an Introduction by Walter E. Grinder), Kansas City: Sheed Andrews and McMeel Inc. (subsidiary of Universal Press Syndacate).
- Lachmann, Ludwig M. (1977b), "The Significance of the Austrian School of Economics in the History of Ideas", in Idem (1977a): 45-64. Originally published in 1966 in German.
- Lachmann, Ludwig M. (1978), *Capital and Its Structure*, Kansas City: Sheed Andrews and McMeel Inc. (subsidiary of Universal Press Syndacate), originally published in 1956.
- Lachmann, Ludwig M. (1986), The Market as an Economic Process, Oxford: Basil Blackwell.
- Lachmann, Ludwig M. (1991), "Austrian Economics: A Hermeneutic Approach", in Lavoie, D. (ed.) (1994), London: Routledge: 276-90.
- Langlois, Richard N. (1986a), "Coherence and Flexibility: Social Institutions in a World of Radical Uncertainty", in Kirzner, I. M. (ed.), Subjectivism, Intelligibility and Economic Understanding: Essays in Honour of Ludwig M. Lachmann on his Eightieth Birthday, London: Macmillan: 171-91.
- Langlois, Richard N. (ed.) (1986b), *Economics as a Process: Essays in the New Institutional Economics*, Cambridge: Cambridge University Press.
- Langlois, Richard N. (1986c), "The New Institutional Economics: An Introductory Essay", in Langlois, R. N. (1986b) (ed.): 1-25.
- Langlois, Richard N. (1986d), "Rationality, Institutions, and Explanation", in Langlois, R. N. (1986b) (ed.): 225-55.
- Langlois, Richard N. (1992), "Orders and Organizations: Toward an Austrian Theory of Social Institutions", in Caldwell B. and Boehm S., (eds.), *Austrian Economics: Tensions and New Directions*, Dordrecht: Kluwer Academic Publishers: 165-83.
- Langlois, Richard N. and Lazlo Csontos. 1993. "Optimization, Rule-Following, and the Methodology of Situational Analysis," in Uskali Mäki, Bo Gustafsson and Christian Knudsen, ed. *Rationality, Institutions, and Economic Methodology*. London: Routledge.
- Langlois, Richard N. and Roger Koppl (1991), "Fritz Machlup and Marginalism: A. Reevaluation." *Methodus* 3: 86-102
- Lavoie, Don (ed.) (1994), Expectations and the Meaning of Institutions: Essays in Economics by Ludwig Lachmann. London: Routledge.

- Lewin, Peter (1994), "Knowledge, Expectations, and Capital. The Economics of Ludwig M. Lachmann: Attempting a New Perspective", in Boettke (1994): 233-56.
- Lewin, Peter (1997), "Hayekian Equilibrium and Change", *Journal of Economic Methodology* 4(2): 245-66(June).
- Lewin, Peter (1999), *Capital in Disequilibrium: The Role of Capital in a Changing World.*London and New York: Routledge.
- Lewis, Paul and Jochen Runde (2006, in press), "Subjectivism, Social Structure and the Possibility of Socio-economic Order: The Case of Ludwig Lachmann", *Journal of Economic Behaviour and Organization*.
- Mittermaier, K. H. M. (1992), "Ludwig Lachmann (1906-1990): A Biographical Sketch", South African Journal of Economics, 60(1): 7-23(March).
- Moss, Laurence S. (ed.) (2000), "Remembrance and Appreciation Roundtable Professor Ludwig M. Lachmann (1906-1990): Scholar, Teacher, and Austrian School Critic of Late Neoclassical Formalism in Economics", *American Journal of Economics and Sociology* 59(3): 367-417(July).
- Moss, Scott (1984), "The History of the Theory of the Firm from Marshall to Robinson and Chamberlin: The Source of Positivism in Economics", *Economica*, N.S., 51(203): 307-18(August).
- North, Douglass C. (1981), Structure and Change in Economic History, New York: W. W. Norton & Company, Inc.
- O'Brien D. P. (1984), "The Evolution of the Theory of the Firm", in Stephen, F. H. (ed.), Firms, Organization and Labour, London: Macmillan: 25-62.
- O'Driscoll, Gerald P. Jr. and Mario Rizzo (1985), *The Economics of Time and Ignorance*, Oxford: Basil Blackwell.
- Prendergast, Christopher (1986), "Alfred Schütz and the Austrian School of Economics", *American Journal of Sociology* 92(1): 1-26(July).
- Rowe, Nicholas (1989), Rules and Institutions, New York: Philip Allan.
- Schotter, Andrew (1981), *The Economic Theory of Social Institutions*, Cambridge: Cambridge University Press.
- Schütz, Alfred (1962), Collected Papers, Vol.1: The Problem of Social Reality, The Hague: Martinus Nijhoff.
- Schütz, Alfred (1972), *The Phenomenology of the Social World*, London: Heinemann. Originally published 1932.
- Searle, John R. (2005), "What is an Institution?", *Journal of Institutional Economics* 1(1): 1-22(June).
- Shackle, George L.S. (1972), *Economics and Epistemics*, Cambridge: Cambridge University Press.
- Vaughn, Karen I. (1994), Austrian Economics in America: The Migration of a Tradition, Cambridge: Cambridge University Press.
- Williamson, Oliver E. (1985), *The Economic Institutions of Capitalism*, New York: The Free Press.
- Winter, Sidney G. (1964), "Economic 'Natural Selection' and the Theory of the Firm", *Yale Economic Essays* 4(1): 225-72(Spring).

SMG - Working Papers www.cbs.dk/smg

- **2003-1:** Nicolai J. Foss, Kenneth Husted, Snejina Michailova, and Torben Pedersen: Governing Knowledge Processes: Theoretical Foundations and Research Opportunities.
- **2003-2:** Yves Doz, Nicolai J. Foss, Stefanie Lenway, Marjorie Lyles, Silvia Massini, Thomas P. Murtha and Torben Pedersen: Future Frontiers in International Management Research: Innovation, Knowledge Creation, and Change in Multinational Companies.
- **2003-3:** Snejina Michailova and Kate Hutchings: The Impact of In-Groups and Out-Groups on Knowledge Sharing in Russia and China CKG Working Paper.
- **2003-4:** Nicolai J. Foss and Torben Pedersen: The MNC as a Knowledge Structure: The Roles of Knowledge Sources and Organizational Instruments in MNC Knowledge Management CKG Working Paper.
- **2003-5:** Kirsten Foss, Nicolai J. Foss and Xosé H. Vázquez-Vicente: "Tying the Manager's Hands": How Firms Can Make Credible Commitments That Make Opportunistic Managerial Intervention Less Likely CKG Working Paper.
- **2003-6:** Marjorie Lyles, Torben Pedersen and Bent Petersen: Knowledge Gaps: The Case of Knowledge about Foreign Entry.
- **2003-7:** Kirsten Foss and Nicolai J. Foss: The Limits to Designed Orders: Authority under "Distributed Knowledge" CKG Working Paper.
- **2003-8:** Jens Gammelgaard and Torben Pedersen: Internal versus External Knowledge Sourcing of Subsidiaries An Organizational Trade-Off.
- **2003-9:** Kate Hutchings and Snejina Michailova: Facilitating Knowledge Sharing in Russian and Chinese Subsidiaries: The Importance of Groups and Personal Networks Accepted for publication in *Journal of Knowledge Management*.
- **2003-10:** Volker Mahnke, Torben Pedersen and Markus Verzin: The impact of knowledge management on MNC subsidiary performance: the role of absorptive capacity CKG Working Paper.
- **2003-11:** Tomas Hellström and Kenneth Husted: Mapping Knowledge and Intellectual Capital in Academic Environments: A Focus Group Study Accepted for publication in *Journal of Intellectual Capital* CKG Working Paper.
- **2003-12:** Nicolai J Foss: Cognition and Motivation in the Theory of the Firm: Interaction or "Never the Twain Shall Meet"? Accepted for publication in *Journal des Economistes et des Etudes Humaines* CKG Working Paper.
- **2003-13:** Dana Minbaeva and Snejina Michailova: Knowledge transfer and expatriation practices in MNCs: The role of disseminative capacity.
- **2003-14:** Christian Vintergaard and Kenneth Husted: Enhancing selective capacity through venture bases.

2004

- **2004-1:** Nicolai J. Foss: Knowledge and Organization in the Theory of the Multinational Corporation: Some Foundational Issues
- 2004-2: Dana B. Minbaeva: HRM practices and MNC knowledge transfer
- **2004-3:** Bo Bernhard Nielsen and Snejina Michailova: Toward a phase-model of global knowledge management systems in multinational corporations
- **2004-4:** Kirsten Foss & Nicolai J Foss: The Next Step in the Evolution of the RBV: Integration with Transaction Cost Economics
- **2004-5:** Teppo Felin & Nicolai J. Foss: Methodological Individualism and the Organizational Capabilities Approach
- **2004-6:** Jens Gammelgaard, Kenneth Husted, Snejina Michailova: Knowledge-sharing Behavior and Post-acquisition Integration Failure
- 2004-7: Jens Gammelgaard: Multinational Exploration of Acquired R&D Activities
- **2004-8:** Christoph Dörrenbächer & Jens Gammelgaard: Subsidiary Upgrading? Strategic Inertia in the Development of German-owned Subsidiaries in Hungary
- **2004-9:** Kirsten Foss & Nicolai J. Foss: Resources and Transaction Costs: How the Economics of Property Rights Furthers the Resource-based View
- **2004-10:** Jens Gammelgaard & Thomas Ritter: The Knowledge Retrieval Matrix: Codification and Personification as Separate Strategies
- **2004-11:** Nicolai J. Foss & Peter G. Klein: Entrepreneurship and the Economic Theory of the Firm: Any Gains from Trade?
- **2004-12:** Akshey Gupta & Snejina Michailova: Knowledge Sharing in Knowledge-Intensive Firms: Opportunities and Limitations of Knowledge Codification
- **2004-13:** Snejina Michailova & Kate Hutchings: Knowledge Sharing and National Culture: A Comparison Between China and Russia

- **2005-1:** Keld Laursen & Ammon Salter: My Precious The Role of Appropriability Strategies in Shaping Innovative Performance
- **2005-2:** Nicolai J. Foss & Peter G. Klein: The Theory of the Firm and Its Critics: A Stocktaking and Assessment
- **2005-3:** Lars Bo Jeppesen & Lars Frederiksen: Why Firm-Established User Communities Work for Innovation: The Personal Attributes of Innovative Users in the Case of Computer-Controlled Music
- **2005-4:** Dana B. Minbaeva: Negative Impact of Hrm Complementarity on Knowledge Transfer in Mncs
- **2005-5:** Kirsten Foss, Nicolai J. Foss, Peter G. Klein & Sandra K. Klein: Austrian Capital Theory and the Link Between Entrepreneurship and the Theory of the Firm

- **2005-1:** Nicolai J. Foss: The Knowledge Governance Approach
- **2005-2:** Torben J. Andersen: Capital Structure, Environmental Dynamism, Innovation Strategy, and Strategic Risk Management
- **2005-3:** Torben J. Andersen: A Strategic Risk Management Framework for Multinational Enterprise
- **2005-4:** Peter Holdt Christensen: Facilitating Knowledge Sharing: A Conceptual Framework
- **2005-5** Kirsten Foss & Nicolai J. Foss: Hands Off! How Organizational Design Can Make Delegation Credible
- **2005-6** Marjorie A. Lyles, Torben Pedersen & Bent Petersen: Closing the Knowledge Gap in Foreign Markets A Learning Perspective
- 2005-7 Christian Geisler Asmussen, Torben Pedersen & Bent Petersen: How do we capture "Global Specialization" when measuring firms' degree of internationalization?
- **2005-8** Kirsten Foss & Nicolai J. Foss: Simon on Problem-Solving: Implications for New Organizational Forms
- 2005-9 Birgitte Grøgaard, Carmine Gioia & Gabriel R.G. Benito: An Empirical Investigation of the Role of Industry Factors in the Internationalization Patterns of Firms
- **2005-10** Torben J. Andersen: The Performance and Risk Management Implications of Multinationality: An Industry Perspective
- 2005-11 Nicolai J. Foss: The Scientific Progress in Strategic Management: The case of the Resource-based view
- 2005-12 Koen H. Heimeriks: Alliance capability as a mediator between experience and alliance performance: An empirical investigation into the alliance capability development process
- 2005-13 Koen H. Heimeriks, Geert Duysters & Wim Vanhaverbeke: Developing Alliance Capabilities: An Empirical Study
- 2005-14 JC Spender: Management, Rational or Creative? A Knowledge-Based Discussion 2006
- **2006-1:** Nicolai J. Foss & Peter G. Klein: The Emergence of the Modern Theory of the Firm
- **2006-2:** Teppo Felin & Nicolai J. Foss: Individuals and Organizations: Thoughts on a Micro-Foundations Project for Strategic Management and Organizational Analysis
- **2006-3:** Volker Mahnke, Torben Pedersen & Markus Venzin: Does Knowledge Sharing Pay? An MNC Subsidiary Perspective on Knowledge Outflows
- **2006-4:** Torben Pedersen: Determining Factors of Subsidiary Development

2006-5	Ibuki Ishikawa: The source of competitive advantage and entrepreneurial judgment in the RBV: Insights from the Austrian school perspective
2006-6	Nicolai J. Foss & Ibuki Ishikawa: Towards a dynamic resource-based view: Insights from Austrian capital and entrepreneurship theory
2006-7	Kirsten Foss & Nicolai J. Foss: Entrepreneurship, Transaction Costs, and Resource Attributes
2006-8	Kirsten Foss, Nicolai J. Foss & Peter G. Klein: Original and Derived Judgement: An Entrepreneurial Theory of Economic Organization
2006-9	Mia Reinholt: No More Polarization, Please! Towards a More Nuanced Perspective on Motivation in Organizations
2006-10	Angelika Lindstrand, Sara Melen & Emilia Rovira: Turning social capital into business? A study of Swedish biotech firms' international expansion
2006-11	Christian Geisler Asmussen, Torben Pedersen & Charles Dhanaraj: Evolution of Subsidiary Competences: Extending the Diamond Network Model
2006-12	John Holt, William R. Purcell, Sidney J. Gray & Torben Pedersen: Decision Factors Influencing MNEs Regional Headquarters Location Selection Strategies
2006-13	Peter Maskell, Torben Pedersen, Bent Petersen & Jens Dick-Nielsen: Learning Paths to Offshore Outsourcing - From Cost Reduction to Knowledge Seeking
2006-14	Christian Geisler Asmussen: Local, Regional or Global? Quantifying MNC Geographic Scope
2006-15	Christian Bjørnskov & Nicolai J. Foss: Economic Freedom and Entrepreneurial Activity: SOME CROSS-COUNTRY EVIDENCE
2006-16	Nicolai J. Foss & Giampaolo Garzarelli: Institutions as Knowledge Capital: Ludwig M. Lachmann's Interpretative Institutionalism