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## Economy and Society

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t713685159>

### A new paradigm for economic analysis?

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To cite this Article Wilkinson, John(1997) 'A new paradigm for economic analysis?', Economy and Society, 26: 3, 335 — 339

To link to this Article: DOI: 10.1080/03085149700000017

URL: <http://dx.doi.org/10.1080/03085149700000017>

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# A new paradigm for economic analysis?

Recent convergences in French social science and an exploration of the convention theory approach with a consideration of its application to the analysis of the agrofood system

John Wilkinson

## Abstract

This article reviews recent convergences in the French social science literature, particularly those emerging between the sociology and economics of innovation, regulation theory and convention theory, focusing primarily on the contribution of this latter. In the first section, examples of collaboration across these different currents are discussed and the migration of key concepts identified. This is followed by a more detailed comparison of the respective contributions of convention and regulation theory which has dominated 'non-standard' economic thinking in France since the late 1970s. The main features of convention theory are then presented together with an appreciation of this approach's potential for providing a new framework within which to situate the emergence, consolidation and transformation of different patterns of economic co-ordination. This potential is illustrated with reference to the analysis of the agrofood sector. The article focuses specifically on convention theory since its contribution has been less widely discussed in the Anglo-Saxon literature than its 'rival/complement' regulation theory. Areas of convergence and contrast with recent developments in the new micro-economics and the new economic sociology are also considered.

Keywords: convention theory; regulation theory; economic sociology; sociology of innovation; convergences in the social sciences; agrofood.

## Introduction

This article analyses a selection of current French contributions to the development of new analytical and methodological frameworks for the social sciences. It will focus primarily on the 'non-standard' economic traditions, although these involve an increasing dialogue with the new micro-economics of game theory and institutional approaches associated with the transaction costs approach of Williamson (1975). We will analyse in particular the interdisciplinary perspectives of these traditions in relation to the broader social science area, identifying linkages with the actor-network literature emerging from the sociology of

*Economy and Society* Volume 26 Number 3 August 1997: 305-339  
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0308-5147

science/innovation and the interdisciplinary forum provided by the MAUSS (the anti-utilitarian movement in the social sciences). In a subsequent article we intend to discuss this latter literature in greater depth.

The 'non-standard' economics literature has been dominated in France by regulation theory which, however, has suffered considerable evolution since its 'Marxist' origins. The economics of innovation approach has its adepts (the BETA and the LATAPSES groups in Strasbourg and Grenoble respectively) but neo-Schumpeterian analysis has perhaps a more Anglo-Saxon institutional base. Convention theory, whose discussion will form the core of this article, can be seen from one angle as a micro-level complement to regulation theory in its original focus on the wage relation, but it has also forged its concepts in a sustained critical dialogue with game theory. On the other hand, in common with the other 'non-standard' traditions, the convention approach is characterized by a strongly interdisciplinary orientation. In particular, as we will see, it adopts a methodological stance associated with the actor-network analysis of Callon and Latour in that it is explicitly 'interpretative' and has the actor as its analytical starting-point.

A similar interdisciplinary openness can be identified in this social science current. The actor-network approach, in addition to its methodological originality which in itself is strongly interdisciplinary, tackles themes which are at the heart of 'non-standard' economics – path dependence, innovation – production – diffusion, and network construction. The MAUSS movement for its part, based on the project of reconstituting the 'gift' as an alternative approach for the analysis of socio-economic transactions, has provided a forum for a more radical critique of game theory and optimizing self-interested rationality. As a natural extension of its foundational preoccupation with the notion of the 'gift' it has more recently connected with the extensive debates on the position of trust in economic activity and its reducibility, or not, to broader concepts of interest (MAUSS 1994), identified with the new economic sociology (Ingham 1996).

In the first section of this article we will focus primarily on the relations between regulation theory and convention theory with an appreciation also of convergences in the case of evolutionary theory. We will then examine convention theory in more detail and focus particularly on its openness to an interdisciplinary perspective. In the final section we will briefly indicate how this approach may be applied to a specific sector – the agrofood system. The social science literature, referred to above, will be discussed here only to the extent that it exemplifies aspects of the interdisciplinary partnership envisaged in the convention programme. It will, as indicated above, be the object of more extensive analysis in a subsequent article.

### **Converging authorship and themes in 'non-standard' economics and social science approaches**

In this section we will explore the increasing convergence between the different traditions mentioned above, attempting to identify the principal elements

involved, and their significance for the analysis of economic life. At a phenomenal level this process can be captured in the prevalence of co-authorship across the different traditions, combined with the migration of key categories and the persistence of bibliographical cross citations. We will demonstrate these tendencies by way of examples involving the principal authors of each tradition.

Boyer, a leading exponent of the regulationist school, and Orléan, editor of *Analyse économique des conventions* (1994), have co-authored a series of articles over the years on the 'wage convention' (1991, 1994). Coriat, another leading figure in the regulationist camp, has explored convergences with the neo-Schumpeterian approach to the firm in a number of articles with Dosi, perhaps the leading exponent of this latter analysis (1994, 1995). Orléan for his part is a regular contributor to the Journal *MAUSS* in addition to co-authoring *La Violence de la Monnaie* (1982) with Aglietta, the original formulator of the regulation approach. Thévenot, in an important recent article from the conventionist perspective, explores the connection between the crystallization of norms and the analysis of 'new regimes of accumulation' and at the same time takes on board concepts dear to the actor-network analysis of Callon and Latour, notably the call to 'follow the actors', the concept of 'action at a distance' and more generally the espousal of an interpretationist methodology (1995). This approach also underlies Thévenot's joint work with Boltanski – *De la Justification*, a landmark in convention analysis to which we will return in the next section. These notions are also explicitly elaborated in the work of Eymard-Duvernay (1994, 1995) and Favereau (1994), also leading 'conventionist' analysts. Callon, for his part, has collaborated more closely with the economics of innovation tendency and has explored such typically neo-Schumpeterian notions as 'path dependency' and 'irreversibility' (1992), while Latour has applied his methodology to major economic projects such as the proposed automation of the metro system, and has perhaps most radically developed the status of 'things' for social (and therefore also economic) action in his recent work on technology (1994, 1995). In addition he is also a member of the *MAUSS* publication council.

A notable moment of this convergence, and one which captures the central role of the new economic sociology in the form of Granovetter's re-elaboration of the concept of 'embeddedness' (Granovetter was also a key invited speaker at the CREA Conference 'Economie des Conventions' in 1991), was the 'Colloque de l'Association pour le Développement de la Socio-Économie' in Lyon, 1992, and published as 'L'Inscription Sociale du Marché' (Jacob and Verin 1995). This 'colloque' opened with a presentation by Granovetter on the notion of embeddedness which served as a point of reference for subsequent contributions. Boyer for the regulation tradition, Caille for the *MAUSS* movement, Favereau, Eymard-Duvernay and Salais for convention theory, along with other leading contributors who will not be directly discussed in this article – d'Iribarne, Reynaud, Saglio – all participated. The title of Boyer's contribution captures well the migration of concepts within the heterodox approaches to the social sciences: 'Work as a source of social ties: from the emergence to the crisis of a social construction'.

These casual observations of intellectual convergence could clearly be more systematically explored, but they are sufficient, I feel, to indicate a trend. While lack of coherence (an occupational hazard) can sometimes account for unusual intellectual partnerships, a closer analysis will show that this is an unlikely hypothesis here. Nor can these convergences be laid down to 'overly ecumenical' predispositions or to professional pressures. As Faverau has observed in a recent public communication (1996), professional pressures in the social sciences point rather in the direction of the search for 'difference', with Kuhn's idea of 'normal science' tending to be viewed with reserve. I would argue therefore that both a methodological and a substantive common ground is emerging which is of decisive significance for the elaboration of an alternative to the liberal paradigm, and which already shows signs of serving as an 'attractor' for the emergence of a new paradigm.

#### *Key areas of convergence*

As an initial attempt to formulate the specifically French component of this convergence (and it is clear that other traditions have had and increasingly continue to have their influence – for instance, Granovetter's renovation of the concept of the social embeddedness of economic activity (1985) together with the 'social construction of technology' literature (Gras 1993)), we would say that its dynamic has been defined by (1) an amplification of the convention tradition's sectoral analysis of the wage relation and (2) an inverse movement on the part of regulation theory which has increasingly retreated from its more structuralist 'mode of production' framework.

On the methodological level this has involved the conventionists in shifting from a simplified methodological individualism towards a more institutionally situated characterization of individual and collective action. The regulationists for their part have retreated from a largely functionalist interpretation of actor adjustment to one where institutions now provide the context in which routines and collective behaviour are developed. This approximation is perhaps best expressed in the work of Boyer and Orléan on the 'Persistence et changement des conventions' (1994). A parallel and equally important approximation is in process in the collaboration between Coriat and Dosi (1994) to relate the evolutionary school's notion of 'routines' developed within a methodologically individualist approach to a recognition of broader institutional determinants captured in the notions of 'Fordism' and 'Toyotism', elaborated within regulation theory.

On the substantive grounds of convergence it should be recognized that both the convention and the regulation traditions have their roots in a privileged attention to the wage relation – its *specificity*, in the case of the conventionists, and its *centrality for long-term dynamic growth*, in the case of the regulationists.

The conventionist approach developed around a traditional theme – the uniqueness of the commodity 'labour' (recognized also in the new micro-economics in the form of the 'incomplete contract') – and developed an analysis of

the rules, norms and conventions which underwrote the wage relation (Salais and Thévenot 1986). Two developments, in my view, have served to transform this sectoral insight into a general perspective for the analysis of economic activity. On the one hand, the convention school's critique of the concept of rules in game theory and the apparently irresolvable problem of infinite regress, 'from rules to rules which explain rules and from there to rules which', led them to construct a very powerful general theory of the construction and validation of rules, norms and conventions as the basis of all economic activity. The seminal work here would be *De la justification* (Boltanski and Thévenot 1989) co-written, interestingly, by a sociologist and an economist; this will be analysed in more detail below. The second equally decisive development was the recognition that not only labour but commodities in general suffered the deficiencies of 'incomplete contracts', requiring therefore rules, norms and conventions for their production and exchange. While 'Fordism' was based on the 'qualification' of labour for the greater quantification of production, the current economic dynamic is based precisely on the qualification of the product, captured in the current obsession with 'quality'. On the basis of these two developments the convention approach has moved in the direction of a generalized organizational theory of economic activity. As we will see later, this approach is interpreted within a dynamic, inter-temporal, actor perspective through the notion of 'collective learning' in a very finely argued article by Favereau (1994).

The regulation school, for its part, has progressively shifted during the 1980s from its more 'Marxist' and 'structuralist' origins. In effect, the micro, the institutional and the structural levels of analysis have always been present in the regulationist account, but the former tended to represent adjustments to the latter, despite explicit and repeated disavowals of functionalism. In the work of Coriat, the principal preoccupation is to avoid the dissolution of collective action into the intra-firm 'routines' of neo-Schumpeterian analysis (Coriat and Weinstein 1995), while Boyer (1995b) has, inversely, shifted the axis of analysis from 'structures' to institutions.

In this whole process, an originally micro-perspective – convention theory – has opened out to cover the intermediate terrain of institutions, which has also become the privileged focus of a macro-structuralist tradition – regulation theory – in partial retreat. A clear common ground has therefore been forged in both substantive and methodological terms.

Equally at stake in this process is a redivision of disciplinary boundaries. Neo-classical economics, or what the French call 'standard' theory, has no use for interdisciplinary collaboration, since by definition no one actor can influence the behaviour of another, and preferences and technology represent exogenous 'states of the world'. In the common ground which we have identified above, however, economic activity is socially constructed and maintained and historically determined by individual and collective action expressed through organizations and institutions. The analysis of economic action therefore becomes a collective endeavour of economics, sociology, history, organization theory and political philosophy. The convention school has probably a more radical

commitment to interdisciplinarity based on complementary approaches to common problems. Historical analysis for its part has always been at the heart of regulation theory and interdisciplinarity would seem to be reinforced by its shift away from a structuralist/holist framework.

It is interesting to note that similar tendencies have been at work in the re-focusing of neo-classical economics. Game theory presupposes the strategic character of action with one actor's decisions being directly influenced by those of other relevant actors, marking a radical break from the automata of perfect competition. However, at the same time, it introduces the inconvenience of sub-optimum equilibria (the prisoner's dilemma) and the possibility of multiple equilibria, an equally embarrassing outcome for rational action (Cahuc 1993). Solutions to these problems have pushed game theory in the direction of rule formation and the promotion of co-operation among actors, which opens up to more institutional forms of analysis.

A more explicitly institutional approach has been adopted by the transaction costs analysis associated with Williamson. In a movement paralleling the evolution of convention theory from a sectoral analysis of the peculiarities of the wage relation to a global analysis of economic action as structured by norms and conventions, Williamson has shifted the analysis from the products subject to exchange to the activity of exchange itself within the constraints of his now famous trinity of 'information impactness', 'specific assets' and 'opportunistic behaviour' (1975, 1985, 1993). According to this view, the costs involved in transacting on the market within the terms of these constraints have led organizations to internalize an ever greater proportion of economic activity. An understanding of organizations is in its turn crucial given the need to evaluate the 'governance costs' associated with such internalization. Economics therefore opens in the direction of administration and organization theory (Menard 1990). The difficulty of fully specified and enforceable contracts is at the heart of transaction costs, which makes a dialogue with contract law equally central. This of course is a feature of much economic literature dealing with the mechanisms for compensating informational asymmetry.

The interdisciplinary overtures of the new micro-economics are, however, typically instrumental in that they presuppose the adaptation of institutions to efficiency outcomes. This is particularly the case with much of Williamson's analysis where organizations are mechanisms for optimizing savings on transaction or governance costs. Williamson makes great use of Chandler's historical account of the shift from firms based on a centralized management structure (the U form) to the multidivisional (M form) organization typical of the large integrated and diversified firms throughout the greater part of the twentieth century (Chandler 1977, 1990). Chandler himself in a recent article, however, has tried to extricate himself from Williamson's embrace and has associated himself more with the neo-Schumpeterian tradition (1992). The shift in organizational forms, therefore, with which Chandler is dealing is the result over the 'long durée' of multiple processes of collective learning, imitation, trial and error and cannot be reduced to the typically micro-level efficiency adjustments of the Williamson

variety. (It is interesting that Coriat and Weinstein (1995), who also associate Chandler's analysis with their own analytical approach on the micro-determinants of regulation theory, have taken Chandler to task for the incoherence of his choice of allies given the methodological individualism which they identify as integral to the neo-Schumpeterian tradition.)

*'Following the actors' in their interpretation of this convergence*

Before considering in more detail the principal analytical contributions of convention theory, we will briefly present an evaluation of key examples of this convergence in the social sciences provided by some of the principal analysts of the different traditions. Such an opportunity has presented itself with the recent publication of a 'state of the arts' of regulation theory, with over fifty contributions (Boyer and Saillard 1995). We will limit ourselves to the articles by recognized spokespersons of the different views and consider only convergences within 'non-standard' economics and their respective perspectives on methodology, organizations and institutions. Equally legitimate areas of interdisciplinary consideration – particularly between economics, history and geography – will not therefore be directly discussed here. We will focus on the articles by Boyer for the regulation school, the dual appraisal of the relations between the evolutionary perspective and regulation theory by Dosi and Coriat and Favereau for convention theory.

In an introductory chapter on the origins of regulation theory Boyer contrasts the 'regulationist cauldron' with the reductionist programme of standard economic theory which in the 1980s has systematically applied the presuppositions of 'homo oeconomicus' to law, history and a wide variety of social institutions. (Curiously Boyer identifies this movement with a deepening of disciplinary boundaries rather than as an expression of 'economic imperialism'.) Regulation theory, he states, 'has demonstrated a pluridisciplinary vocation since its origins which continues today in the form of a network of researchers based on different academic disciplines, whose frontiers are being redefined in the process' ('Aux Origines de la theorie de la régulation'; Boyer 1995a: 26). In addition to restating the classic filiation with Marx and Kalecki, regulation theory identifies its indebtedness to the Annales school of history, to the institutional analysis of political science and law, to the concepts of 'habitus' and 'field' developed in the sociology of Bourdieu, and to the social science analysis of 'corporatism' and 'procedures of co-ordination'. Boyer notes also the convergence around the notion of 'conventions' and the increasing attention paid by the neo-Schumpeterians to the institutional determinants of innovation. Boyer summarizes the interdisciplinary inputs in a very thought-provoking figure (see Figure 1).

In his concluding article, Boyer sees regulation theory moving towards an 'original theory of institutions', confirming, as we shall see, Favereau's characterization of the shift from a 'regulation theory mark one', based on the notion of modes of production, to a 'mark two' variant firmly centred around the notion



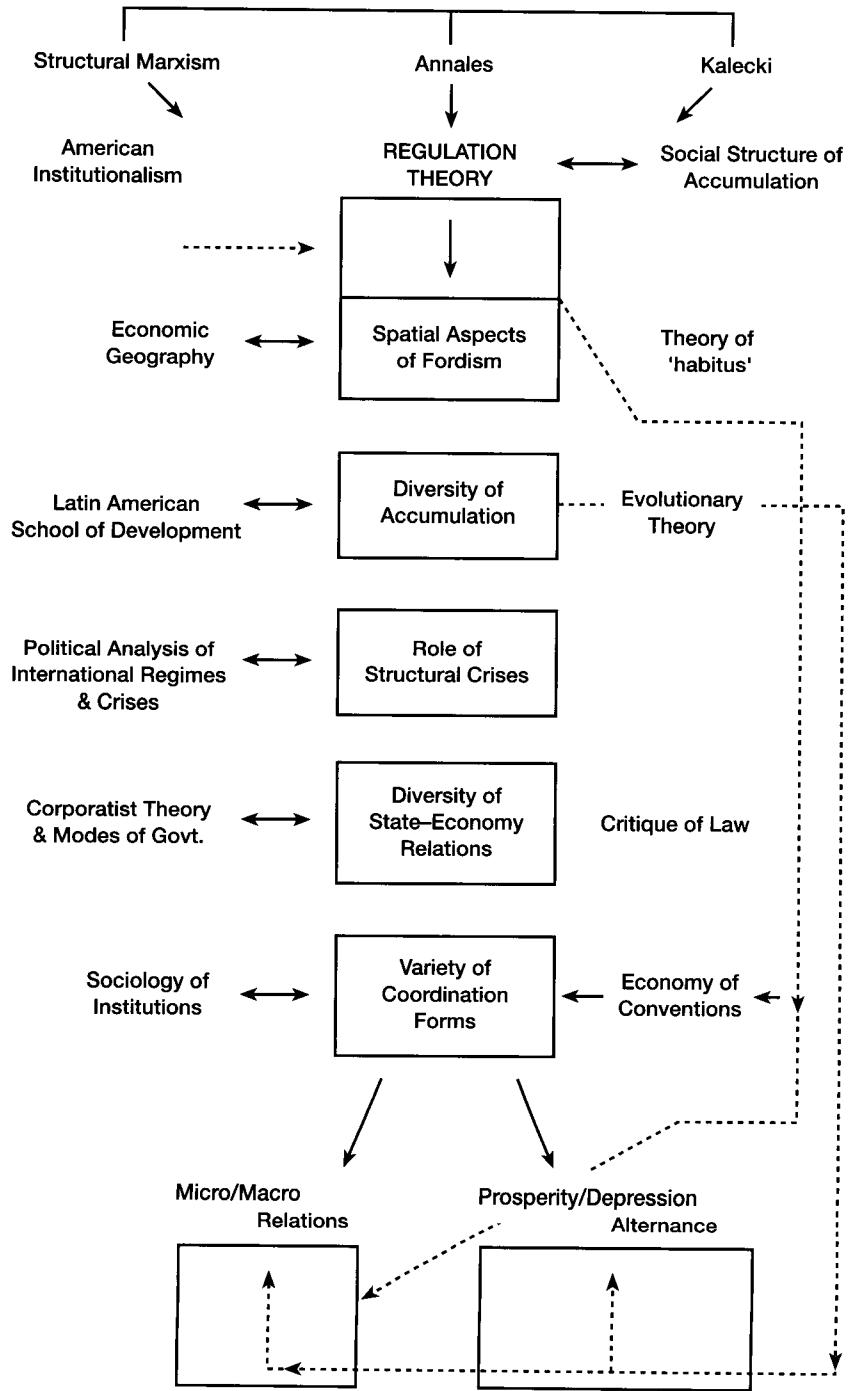


Figure 1 Genealogy and sources of inspiration for regulation theory  
 Source: Boyer and Saillard 1995: 30.

of institutions ('Vers une théorie originale des institutions économiques'; Boyer 1995b). Reviewing the results of research over the last decade, Boyer highlights the evidence pointing to: (1) the 'extreme variability of institutional forms' and (2) the 'accentuation of performance differences related to the diversity of regulation modes'.

In emphasizing the endogenous factors leading from growth to crisis, together with the weight of conflict and political intervention in the transformation from one mode of regulation to another, the 'complexity and interdependence of institutional forms' are singled out as key hypotheses in analysing the persistence of the current crisis. Boyer refers at this point to an earlier piece of research undertaken with a leading conventionist – Orléan – analysing the complex interrelations between individual and collective action which eventually led to the consolidation of the institutional forms underwriting 'Fordism', seen as the largely unintentional outcome of a series of partial and sectoral compromises. In this context, Boyer reaffirms the convergence with convention theory in establishing the first steps towards a 'theory of organizational forms, conventions and institutions'.

In highlighting the institutional nature of markets and the necessary role of State intervention, Boyer evokes the writings of Polanyi which have recently received an original re-working by Granovetter and, in parallel with the conventionists, adopts the latter's notion of the 'embeddedness' of economic phenomena in the broader social relations of society.

The issue of the variability of organizational forms brings out most clearly the interdisciplinary dynamic of 'regulation theory mark two':

On this point the theory of regulation joins with the lessons of neo-corporatist analyses, particularly their developments over the last decade (Schmitter, 1990). Similarly, sociological and historical research on economic institutions (Hollingsworth, Schmitter, Streeck, 1994) has led to a taxonomy (alliances, private hierarchies, communities, networks) very close to the approach based on the principles of coordination, thereby establishing a bridge between the political and economic spheres.

(Boyer 1995b: 535–6)

This focus on the 'architecture of institutional forms' is seen to provide the intermediary concepts for analysing the functioning of regimes at the sectoral and not only the macro-economic level. Rejecting the neoclassical explanation of institutional persistence in terms of efficiency, regulation theory emphasizes the specificity of institutional patterns based on the combined effects of interdependence, conflict and compromise. The article closes with a brief reflection on the significance of institutional innovation: 'a theme dear to evolutionary theory and also to a dynamic variety of the economy of conventions which concentrates on the phenomenon of learning', and concludes: 'It could be interesting to think in terms of hybridization, in the sense of combining the new and the old, the autochthonous and the cosmopolitan, the social and the economic.'

There may be suspicion that Boyer is overly generous in his openness to the contributions from other disciplines – it is probable, for instance, that Bourdieu's

notions of 'habitus' and 'fields' would find little receptivity among the social scientists of the conventionist school. In Figure 1 there is in fact little discrimination between early and more recent regulation theory. While the theory was originally much more historical and structural in approach (Annales and Bourdieu), it is now clearly more concerned with the determinants of current and prospective institutional arrangements drawing on varieties of organization theory and actor-oriented traditions of convention analysis. Boyer himself pays little attention to the methodological heterogeneity of the interdisciplinary partnerships proposed.

A quite different stance is adopted by Coriat in his joint work with Dosi where very creative co-operation is accompanied by an insistence on significant methodological differences. An earlier article (1994) was dedicated to ways of exploring convergences between the 'problem-solving' routines approach to the behaviour and identity of firms within the evolutionary tradition, and the 'conflict solving' analysis of shop-floor organization undertaken within the 'Fordist' perspective. In this article the dynamic between intra-firm organizational routines and broader institutionally determined routines was explored with a view to fusing the two approaches. In a later critical review of the evolutionary tradition, however (Coriat and Weinstein 1995), the methodological individualism of this current with its supposedly anti-historical presuppositions is presented as a serious obstacle to joint analysis.

In the present article by Coriat and Dosi ('Évolutionisme et régulation différence et convergences', 1995), the fundamental differences between the two approaches – the one elaborating outwards from the micro-foundations of economic behaviour, the other considering first the structural forms underlying economic activity – are clearly presented at the outset (within a recognition of mutual solidarity *vis-à-vis* standard theory). Here again the lack of institutional underpinning of the neo-Schumpeterian notion of routine is reiterated and seen to render problematic an understanding of the coevolution over the long period of routines, organization and institutions. The evolutionary approach for its part finds in the regulationist shift to an analysis of micro-foundations a point of convergence, but at the same time considers its approach methodologically too generic in its use, for instance, of representative agents such as the 'Fordist firm' rather than the individual firm or a more nuanced typology of firm types. From another aspect, however, these different approaches can be seen to have strong elements of complementarity, combining in different ways the same preoccupation with micro-foundations and emerging regularities. Organizational analysis is therefore at the heart of both approaches, with regulation theory needing to shed its holistic stance and evolutionary theory to incorporate a more institutional perspective if current tendencies to convergence are to be consolidated.

The collaboration between Dosi and Coriat has its parallel in the joint work of Boyer and Orléan which similarly attempts to move from the micro to the institutional levels, this time in terms of conventions, in an analysis of the long road from Henry Ford's US\$5 a day proposal to the trade union agreements and the State legislation of the 1930s (1994). Before discussing the convention

approach in more detail, however, we will first consider Favereau's analysis of the relations between this school and regulation theory.

Favereau's work is characterized by the elegance and the fineness of the arguments developed, and the article under consideration, 'Conventions and regulation', is no exception. Favereau begins his exposition by positioning regulation (RT) and convention theory (CT) as close but opposed tendencies within the resurgence of the institutionalist tradition. This tradition, he argues, is based on two principles: (1) micro- or macro-economic regularities are causally related to the system of institutional rules which co-ordinate the transactions; and (2) these latter are endogenous to the theoretical model.

Both approaches reject the new micro-economics explanation of efficient institutions in terms of non-cooperative solutions in a dynamic game context. For RT, the focus on individual rationality rather than social relations is unacceptable, while, for CT, the hyper-rationality attributed to the economic agents is the principal basis for rejection. RT's critique of mainstream economics is fundamentally external, while CT has deliberately developed its critique within the terms of the new micro-economics (denominated 'extended standard theory (EST)'). RT's objective is to develop a new economic theory, whereas CT considers this utopian and aims rather to force an evolution in the language of economic theory so that it can give an adequate treatment of institutions. In this sense it is argued that a recognition of the existence and strategic importance of collective objects (rules and institutions) for individual rationality has devastating consequences for the methodological individualism which underpins mainstream theory. CT's 'internal' strategy therefore should not be confused with an adaptation to the neo-classical tradition.

Both RT and CT have a 'systematic openness to the other social sciences'. It is argued, however, that RT's relation to the other social sciences and especially to history is basically instrumental, as is CT's in the case of the cognitive sciences. For CT however, this is not true of its own relation with other social sciences which are seen as having taken as their object of analysis the same problematic – the co-ordination of economic activities. While economics has inquired into the conditions for equilibrium, sociology and political philosophy have focused on the possibilities of reaching equitable and stable agreements. The major works of sociology and political philosophy should therefore be read simultaneously as works of economy, and the 'interpretative' tradition in the social sciences is adopted for this task.

Favereau, in addition to citing the works of Dupuy and Boltanski and Thévenot which we will consider in the next section, develops this point by referring to his own work demonstrating that three major contemporary contributions – Rawls' 'Theory of Justice', Boyer's 'Theory of Fordism' and Doeringer's and Piore's 'Theory of Internal Labour Markets' – elaborated in the framework of different disciplines, rely equally on the same type of analysis, namely the notion of institutional rules 'creating a socio-economic space combining efficiency and equity, on condition that these be viewed dynamically: on the one side in terms of productivity gains and on the other increased revenues' (Favereau 1995: 514).

Favereau sees the possibility of integrating these three perspectives into a common research programme analysing: (1) rules as a heuristic for resolving co-ordination problems; and (2) organizations as structures which enable individual learning to be transformed into processes of collective learning.

While for standard theory individuals follow their interests (which might imply following rules), for both RT and CT individuals follow rules (which might coincide with their interests). This common methodological approach opens up opportunities for complementary analyses of industrial dynamics, where, in parallel with evolutionary theory, CT focuses primarily on the coherences between management, production techniques and the quality of products (with typologies developed by Eymard-Duvernay and Salais and Storper) while RT gives pride of place to labour organization. In the RT tradition, however, rules are viewed from a macro-economic perspective with a focus on intermediary institutions and collective actors and their ratification by the State. CT's approach is micro and interpretative – examining the conditions for the emergence of co-operation.

While accepting the basic differences between RT and CT, Favereau argues that there are important areas of complementarity whether the two traditions are viewed in their pristine formulation (RT= holism/Marxism, CT= extended standard economics plus limited rationality) or in their respective 'mark 2' versions (RT= dynamic properties of institutional forms, CT= learning dynamics within given institutional framework). RT analyses the conditions of institutional compromise from the standpoint of conflict, with CT focusing on the co-operative components of agreements. But both aspects (trust/opportunism, co-operation/conflict), it is argued, are mutual constituents of situations of compromise.

For both traditions, therefore, in the words of Favereau, 'institutions produce reality' (they are therefore neither 'superstructures' nor second-best solutions to the market). More than this, institutions are responsible for the dynamic component of this reality – 'regular growth' in the case of RT, 'collective learning' for CT. The interdisciplinary implications emerge clearly here: 'institutions produce a social dynamic and conversely without reference to a social dynamic institutions become unintelligible' (Favereau 1995: 517).

RT and CT coincide in the view that, over the short term, institutional rules represent constraints, whereas in the long term they become endogenous. The former however has traditionally adopted a holist macro-economic perspective based on the notion of reproduction with the institutional structure cohering into a system. The CT, on the other hand, espouses a macro-economics of diversity (both in terms of firm models in the work of Eymard-Duvernay and the 'worlds of production' of Salais and Storper). At the same time, Favereau notes that the evolution of RT away from a mode of production approach has weakened its macro-economic foundations. CT's tendency to diversity, on the other hand, could lead to a 'non-macroeconomy'. Both tendencies therefore need to develop new macro-economic perspectives and Favereau concludes his analysis by identifying possible lines of common research to resituate the micro and macro dimensions of economic activity. These he situates fundamentally

around the notion of actor awareness of macroeconomic variables and the conditions under which given rules of adjustment are considered legitimate or otherwise. As a complement, Favereau argues that diversity should play an analytical role in the analysis of aggregate results, focusing therefore on the distributional features of macroeconomic tendencies. The distribution of income reveals a society's game rules and social groups identify themselves through the rules by which they access their share in national income.

In the above review we have tried to demonstrate the very favourable conditions for convergence both within the different 'heterodox' traditions of economic thought in France and from there outwards towards a broad range of social science traditions to the extent that these deal directly with the dynamics of economic life – a convergence which, as we have seen, is solidly based both methodologically and substantively. Regulation and convention theory had common origins in the focus on the wage relation. The former, however, adopted a structuralist and holist approach, whereas convention theory was rigorously micro and individualist. Regulation theory proposed an alternative economics whereas convention theory worked in critical dialogue with the new micro economics. Both, however, in the course of the 1980s have evolved towards the middle ground of institutional theory and situated action. From being competitive approaches in an earlier period they are increasingly complementary with convention theory focusing on the micro conditions for the emergence and stabilization of economic co-ordination, and regulation theory addressing the issues of systemic regularities and dynamics from the standpoint of the interdependence and variability of institutional forms. We will now consider convention theory's contributions in somewhat more detail.

### **Some key features of convention theory**

We have no illusions of being able to do justice to the convention school's rich and systematic programme of research spanning now well over a decade. We shall therefore content ourselves with presenting what appear to us to be its most original features, indicating also the scope of its applicability. In the final section we shall consider some examples of convention theory analysis of the agrofood system.

Convention theory's initial focus of concern was to explore the apparently unique features of labour. Attention to the processes by which labour was 'qualified' led to an elaboration of the rules, norms and conventions which govern the market dynamic of labour relations (Salais and Thévenot 1986). This insight was then generalized to an examination of the way in which all commodity circulation presupposes prior processes of qualification. Rules, norms and conventions therefore, or organizations and institutions, determine the content and the form of the production and circulation of commodities (Dupuy *et al.* 1989). Such a position is already far removed from standard economics where institutions are a poor substitute for the market and reluctantly admitted only in the

context of the latter's evident failure. The new micro-economics however has incorporated rules as necessary co-ordination mechanisms in the context of non-cooperative strategic behaviour on the part of rational actors. Convention theory's contribution lies in its original elaboration of the notion of rules and the bases of actor co-ordination, developed initially as a critique of game theory's 'arbitrary' application of these concepts.

For convention theory, rules are not prior to action nor are they elaborated from outside the action but emerge within the process of actor co-ordination. More specifically they represent a response to problems arising within such co-ordination and should be understood as mechanisms of clarification which are themselves also open to future challenge. They are therefore dynamic representations of negotiation and as such depend on the existence of prior commonalities among the actors involved. Such 'common knowledge' or 'intersubjective identification of the rules' does not exist in the abstract nor can it be known by an exercise of pure rationality. Rather it has to be recursively interpreted in given situations through the way in which actors relate to a common set of objects which are mobilized through their action. The qualification of objects therefore is simultaneously the qualification of the actors involved. The scope of such collective action is dynamically determined by a process of permanent justification and testing.

At this point convention theory deploys the same methodology as actor-network analysis in its interpretative rather than explanatory approach, its insistence on the situational character of action, and its symmetrical treatment of actors and objects. (We can perhaps see an 'evolutionist' version of this symmetry in the increasing fusion of 'organizational' and 'technological' innovation in recent neo-Schumpeterian literature.) This common filiation emerges more clearly in the 'avant-propos' to the somewhat untranslatable *De la justification: les économies de la grandeur* – a formidable piece of work where the general ideas of collective action outlined above are given specific substance. In their introduction, the authors, Boltanski and Thévenot, make explicit their indebtedness to Callon and Latour and single out the way these latter 'have demonstrated the relation between the weaving of social links and the fabrication of things' and have 'forged links between modern social science and political philosophy' (1991: 35).

That people and things are subject to the same principles of qualification and justification ('justice' in the case of people, and 'justesse' in the case of things – a beautiful juxtaposition which became the title of a later book by the same authors) is the key theme of the 'avant propos' and the lynchpin of the book's whole argument. Without any pretension of doing 'justice' to the authors' magnificent construction of the major forms of justified and justifiable collection action we shall attempt to present a stark summary of the basic argument.

The focus of the book is the *situation* which constitutes collective action in the form of a specific relation between people and things. It therefore rejects the abstract categories of groups and social classes of much sociology, the representative individual of mainstream economics, as also case-study exemplary figures

found in some approaches to anthropology and history. It is, furthermore, concerned with actions as justified and justifiable, rather than as the consequences of supposedly given interests. As a corollary, its analysis stops short of violent action and is concerned rather with the establishment of legitimate forms of collective action through the construction of agreements. Such legitimacy is not *explained* from without however, in terms of group interests or systemic factors, but is *interpreted* from within: 'Description must follow as closely as possible the way in which the actors themselves define the conditions of validity in the situation under consideration, which leads us to be very attentive to the variety of forms of justification' (Boltanski and Thévenot 1991: 25).

Designed as a critique of both holism and methodological individualism (in a later text Livet and Thévenot appear to associate themselves with the 'institutional individualism' of Agassi (1994)), it is argued that all action, including the supposedly atomistic action of the competitive market, is justified by reference to a superior common principle or 'common good', represented in the latter case, for instance, by a common acceptance of the price-equivalence of the traded goods.

Political philosophy, it is argued, was the arena in which these notions of common welfare justifying different forms of collective action were elaborated. The authors use the Augustinian notion of 'city' to describe the historical emergence of different forms of legitimate common welfare, also known as 'grandeurs' or 'worlds'. Six such coherent worlds are identified: (1) inspirational (based on Augustine); (2) opinion-based (Hobbes' *Leviathan*); (3) domestic (various); (4) industrial (St Simon); (5) market (Smith); (6) civic (Rousseau's *Social Contract*).

Six principles, common to each of these historically constituted worlds, are identified whose simultaneous presence represents the criterion of their legitimacy: (1) common humanity – the principle of non-exclusion; (2) the principle of difference; (3) the principle of dignity or equal access; (4) the existence of orders of greatness; (5) the notion of investment whereby difference is justified by the sacrifice or effort involved; (6) the notion of common welfare, implying that all benefit from any increase in 'grandeur'.

Each of these worlds, however, is organized around different types of qualification and subject to equally different forms of justification and challenge. These are described at length, as also the points of comparison and conflict between the different worlds. Although they are historical constructs, these worlds are not to be defined within an evolutionary or implicitly hierarchical continuum as variants of the 'traditional to modern' typologies, nor are they to be identified with specific social groups. Individuals move in and out of these different worlds, and organizations and institutions exhibit their simultaneous presence. To drive home this point, the authors resort to the guide-book literature on firms (in an interesting parallel to Giddens's appropriation of therapy literature for his analysis of reflexivity) to demonstrate how each of these worlds is evoked within the multifaceted dynamic of firm behaviour – creativity (inspirational), loyalty (domestic), productivity (industrial), representation (civic), reputation (opinion)



and competitiveness (market) are all equally organizing principles of firm behaviour.

Much of the thrust of recent economic sociology has been to show how 'efficient' economic behaviour depends on criteria foreign to 'market' ideology. By the same token it has stressed the variability of 'efficient' organizational forms. The convention tradition has welcomed dialogue with this current, especially with Granovetter, but would argue that the thrust of its analysis is restricted to a vindication of the importance of the 'domestic' world for economic life (Livet and Thévenot 1994). Boltanski and Thévenot, on the other hand, would see the domestic world as just one of the six coherent worlds outlined above (although in practice it is perhaps the most significant for economic analysis, as we shall see in the sectoral review of convention analysis of the agrofood system and as can also be gauged in the burgeoning literature on the role of 'trust' and 'confidence' (Williamson 1993; Orléan 1994b).

It is important to note that there is no externally determined hierarchy between these different worlds for the conduct of economic activity. The legitimation of the different worlds proceeds by internal justification and qualification and external negotiation. The approach therefore implies a powerful critique of 'market imperialism'. On the other hand, it equally rules out force as a legitimate instrument for action and with it the notion of 'interests' as permanent and univocal attributes of groups. While there is an internal logic within each world by which action is qualified, justified and put to the test, 'bridging' qualifications, based on principles recognized within different worlds, open the way to mutual justification of different worlds (perhaps here there is an echo of the 'translation' concept of Callon and Latour). Once more in parallel with the work of Callon and Latour, it is in terms of the common objects of a given world that the members qualify and justify their actions.

While we are not in a position to develop this point at length, it would seem that within the Anglo-Saxon literature which has adopted the actor-network orientation, particularly with regard to rural and agrofood studies, the focus has been primarily on the power component of network formation (Murdoch 1995). The convention literature suggests that the same methodology can be integrated into a perspective which privileges negotiation on the basis of the identification of common terms of reference among heterogeneous actors.

The heuristic value of Boltanski and Thévenot's approach and particularly of the organizing role of objects can be captured in the works of Eymard-Duvernay on firm typologies (1994) and the more general 'worlds of production' analysis of Salais and Storper (1995). For his part, Favereau focuses on the underlying principles for any 'legitimate' world in his own highly original analysis of convergences between economics, sociology and political philosophy. We will briefly consider these three contributions which in their different ways carry forward the analysis of Boltanski and Thévenot.

Eymard-Duvernay situates his work very much within a dialogue with the new micro-economics of Williamson (1985) and Kreps (1990). At the same time, it is interesting to note the importance of White's work (1981) which was also

the principal influence on Granovetter's writings. The filiation with Callon and Latour is once more reaffirmed as the former is cited in Eymard-Duvernay's article to explain the role of technical objects as collective points of reference for the qualification of action, a central theme of convention literature (Callon 1991).

We saw earlier how the firm was chosen by Boltanski and Thévenot to exemplify the co-presence of the different legitimate worlds. Favereau also singles out the firm as the prototype of organizational forms to the extent that processes of collective learning are most at a premium here, a point which we will discuss below. Eymard-Duvernay elaborates the analytical significance of the firm for convention theory by counterposing this to the neo-classical notion. He argues that, in situations where the product, which is the object of exchange, contains within it all the information necessary for its exchange, the characteristics of the exchanging partners are unimportant. There is no need for an analysis of either the firm or the purchaser, and both can be subsumed under the figure of the representative individual.

The situation changes radically however when there is uncertainty as to the quality of the product to be exchanged. Here Eymard-Duvernay draws on the literature dealing with incomplete contracts and particularly Kreps' treatment of reputation. The notion of the incomplete contract means that the goods in question are not fully defined prior to their exchange. In such cases the organization itself serves as the support, the guarantor of the exchange. The product market therefore gives way to markets of organizations and the product is exchanged on the basis of judgements relating to the organizations involved in the exchange.

Using the example of a mail transport firm which specializes in non-standard deliveries, Eymard-Duvernay first shows how such a firm must combine qualities from different 'worlds' – the 'market' as regards the fulfilment of the contract, the 'industrial' in the sphere of rules/planning and the 'domestic' in the case of face-to-face client relations. He then proceeds to develop a typology of firms and co-ordination based on the nature of the product. Where this latter is the subject of a complete contract the specific features of the organization are unimportant and we are close to the typical neo-classical market. In the case of the mail transport firm, Kreps' notion of reputation is applicable. In client-supplier relations, however, which lead to specific productive investments, partnership relationships emerge which are based on common instruments of quality measurement which permit the elaboration of broad 'framework' contracts which do not pertain so much to the products themselves as to modes of collaboration. Exchange is now between 'qualified' entities, where 'technical objects' and not simply reputation become the means of qualification. Three types of firms therefore can be distinguished which can be captured in the notion of the shift from buyer to client to partner.

A similar approach is adopted by Salais and Storper in their more ambitious project of qualifying different 'worlds of production' on the basis of product types (Salais and Storper 1992). Their starting point is the difficulty which

mainstream economics, Williamson's transaction costs approach and the business management literature have in coming to terms with the diversity of production structures. Convention theory, it is argued, is the most appropriate conceptual framework for dealing with industrial diversity because it is a product-centred theory of production organization, in which the nature of the product, its quality, 'is defined as much by conventions as by markets and technologies'.

The specific contribution of convention theory is seen to be its focus on: (1) the quality rather than the price and quantity of products; (2) the uncertainty within which actor co-ordination takes place and to which the emergence of conventions are a strategic response; and (3) the notion of conventions as defining production rationalities for each kind of product which are not reducible therefore to neo-classical profit-maximizing. Nevertheless, the notion of diversity does not overrule the imperative of economic coherence which limits the number of possible production structures. Salais and Storper identify four such 'worlds' of production, understood as 'coherent combinations of technologies and markets, product qualities and quantitative practices of resource use'. The authors develop this typology through a preliminary distinction between production in conditions of uncertainty versus predictable markets. Within this framework, it is argued, production organization tends to economies of either scale or scope, but this must be understood within a double opposition of different types of product. On the supply side, products can be standardized or specialized depending on the knowledge base involved, while at the level of demand these products can be generic or dedicated, involving respectively anonymous or client-based markets. We have therefore four basic types of production worlds: (1) the Marshallian market world of specialized dedicated products; (2) the network market world of standardized dedicated products; (3) the world of innovation of specialized generic products; and (4) the industrial world of standardized generic products.

These worlds depend on the development of appropriate methods of co-ordination, or conventions, which deal respectively with the quality of the product and the degree of flexibility in the organization of resources. Each world has its specific mode of evaluation of quality and flexibility which in turn defines the patterns of competition and co-operation. Salais and Storper's analytical framework represents an application of Boltanski and Thévenot's elaboration of the different 'cities'. In addition to the problems of internal co-ordination, the interdependence of the production chain involves the need for co-ordination between worlds. Salais and Storper have applied their analysis to the French car industry and note that the car makers belong to the Network Market World, whereas the sub-contractors operate within a Marshallian market dynamic and the suppliers within the parameters of the Industrial World.

Coherence within diversity in conditions of interdependence demands, as in the case of Boltanski and Thévenot's 'cities', the development of compromises over conventions of quality between the different worlds. It is interesting here that Salais and Storper refer to the need for the 'translation' of conventions from

one world to another, a concept dear to the Callon/Latour tradition. Such compromises can lead to 'commitment-based experimentation' which may result in the emergence of new conventions. Standardized mass production may adopt a strategy of flexibility involving a compromise between the industrial and the network worlds; dedicated intermediate producers may adopt a personal or 'domestic' model of commitment rather than a transaction-cost solution to the risk of specific assets (Granovetter is referred to here); producers of the Marshallian world may move towards the world of innovation in an attempt to broaden their market via the establishment of a reputation and a brand name.

Industrial diversity and its co-ordination via conventions of quality relating to products and the resources for their mobilization are at the heart of this approach. Diversity is therefore a non-trivial concept in that the convention approach rules out the possibility of a single set of rules governing behaviour and efficiency. Contrasting their approach with that of transaction costs which, they argue, is limited to problems of allocation within market economies, Salais and Storper conclude that the "économie des conventions" marries a concern for resource allocation to an investigation of the creative impulses of the system, and the role that non-economic forces play in this dynamic of change'.

A further formative contribution to the corpus of convention theory is provided by Favereau's highly original article 'Règle, organisation et apprentissage collectif' (1994). In identifying the unity of purpose underlying three very different theories from separate disciplinary standpoints – the internal labour market analysis of Doeringer and Piore (1971), Rawls' theory of justice (1972) and the various elaborations of regulation theory (Boyer 1976; Aglietta 1976) – Favereau reworks the criteria legitimating the different worlds of Boltanski and Thévenot, transforming them into the axis of an interdisciplinary 'non-standard' programme of research on the dynamics of economic organization. Whether analysed from the standpoint of equality (Rawls) or efficiency (Doeringer and Piore) or through the ex-post recognition of their mutual correlation (Aglietta, Boyer), these three theories develop a dynamic concept of the causal inter-temporal interdependence between equity and efficiency. Indeed, the six principles underlying any legitimate world in the language of Boltanski and Thévenot – common humanity, the principle of difference, equal access, different orders of greatness (inequality), investment as the justification of difference and common welfare (benefits to all) – can be reformulated in terms of this dynamic trade-off between equity and efficiency.

Lacking however from all three theories, according to Favereau, is an elaboration of the (micro)organizational mechanisms which lie behind this dynamic equation, and, particularly in the case of regulation theory, there is no explanation of the causal role of co-operation in the consolidation of dynamic patterns of economic activity. The argument therefore returns to the central role of a theory of rules and organizations which we have already seen in our review of Livet and Thévenot's discussion of the categories of collective action. Favereau's specific contribution in this article lies in his development of the notion of collective learning which becomes the lynchpin of the convention approach to the

dynamic behind rules and organizations. (It would be interesting here to trace the parallels between the notion of collective learning in convention theory and that developed within neo-Schumpeterian analysis, particularly in the work of Lundvall (1992, 1994), but also more generally in the elaboration of their core idea of 'routines' – Dosi 1988; Nelson and Winter 1982.)

According to Favereau, the new micro-economics attempts to endogenize organizations in the form of co-ordination by rules which are themselves optimal contractual arrangements between 'substantially' rational agents. Individual and collective learning, however, at most bears on the achievement of equilibrium solutions, at which point it then becomes superfluous. For the heterodox theories under consideration, on the other hand, collective learning is permanently tied to the process of co-ordination by rules and organizations, and without such collective learning there would be no rules or organizations.

The three theories presuppose a dynamic inter-temporal relation between equity and efficiency which depends on new production via economic growth (Rawls), or productivity (Doeringer and Piore), or technical progress (RT). The creation of these new states of nature demands the emergence of new knowledge and new capabilities, captured in the notion of 'collective learning'. There is no automatic or guaranteed relation between equity and efficacy however, but rather what Favereau describes as a 'zone of possible overlap', whose conditions are created by the transformation of individual into collective learning. Following the organizational learning analysis of Argyris and Schon (1978), Favereau locates the problem as that of institutionalizing individual discoveries in the form of rules within an organizational structure, which is correlated for him with the problem of 'public goods' in the economic literature. The equity–efficiency interaction therefore is at the heart of the problem of collective learning, since the efficacy of individual creativity will be willingly transformed into institutionalized collective learning only within organizations where minimum notions of equity prevail with regard to the results of such learning.

The notion of collective learning therefore, in its turn, provides a specific focus for the analysis of organizations which, Favereau argues, is richer than either standard economic theory of whatever variant or Marxist critiques in terms of power. It is not simply that collective learning is the characteristic of an organization which accumulates collective knowledge. Rather, 'an organisation is the fixed point of a process of collective learning' and in this sense the firm represents the privileged point of reference for analysing organizations, rather than the inverse. Favereau describes the firm as having a 'double cognitive project': (1) external knowledge of products and the market on the one hand and (2) internal knowledge of costs, techniques and organizational forms on the other. (The affinity with neo-Schumpeterian approaches is striking at this point, and both traditions would be susceptible to Coriat's critique, which we have noted earlier, on the firm as a locus not simply of 'problem solving' but also of 'conflict solving'.) In a lapidary phrase Favereau sums up his view, arguing that 'the greater the need for collective learning, the greater the need for formal organisation' (1994: 128) which in turn justifies his stance on the primacy of the firm for organizational analysis.

The heterogeneity in firm structure is referred to the diversity of forms of collective learning, and the enterprise typology of Eymard Duvernay and the 'worlds of co-ordination' of Boltanski and Thévenot (both described above) are seen as exemplifications of this same process. Convention theory therefore places itself firmly on the terrain of a production approach to economic activity, taking its distance from the conflation of exchange and production typical of the mainstream tradition. In addition, it is argued that this approach permits a more realistic analysis of the diversity both of the wage relation and of firm profiles.

Favereau concludes his article by rejoining the analysis of Livet and Thévenot, with which we began this review of convention theory, of rules as heuristic devices, techniques for resolving problems of action within a process of collective learning. Rules therefore should be analysed from the standpoint of a theory of organizations and as cognitive mechanisms of co-ordination continuously subject to challenge and reformulation.

We will close this discussion of convention theory with a consideration of another seminal contribution – that of Boyer and Orléan (1994) on the dynamic of collective action, and, more specifically, the transformation of individual action into collective conventions. As in the case of Favereau's contribution above, the argument is developed in critical dialogue with contributions from game theory. In this case, the point of departure is the inability of pure rational choice to resolve problems of multiple equilibria in a game theory perspective. Schelling and others, they argue, have attempted to resolve this problem by the resort to exogenous extra-cognitive factors, understood as focal points which serve as attractors for action, leading to co-ordination and the establishment of conventions. In mainstream language, the utility associated with the choice of a strategy is proportional to the number of persons adhering to the strategy. Such gains from conformity override the influence of individual preference. Boyer and Orléan associate this tendency with the broad literature on 'path dependency', whether this be seen in terms of the increasing gains from technology adoption à la Arthur (1988) and David (1985), the behavioural thresholds of Granovetter (1978) – later extended to the notion of organizational 'lock-in' – the conventions of effort of Leibenstein (1982) or Akerlof's theory of social rules (1980).

The conformity effect leading to the stability of conventions in game theory does not imply Pareto-efficiency, which raises the question of the possibility of changing one convention for another. The fundamental issue of social change is therefore posed here and the authors argue that, within the terms of an individualistic society dominated by anonymous contractual relations, such change is inconceivable. The thesis defended in the article, however, is that social change and the emergence of new conventions are possible 'if specific social differentiations exist which allow agents to locate their interactions, giving preference to actors with whom they feel identified' (Boyer and Orléan 1994: 221). Such a situation depends on access to types of knowledge exogenous to the world of rational choice – social, cultural, ethnic, historical – and which allow actors to deal with strategic uncertainty.

The authors develop their arguments within the parameters of evolutionary game theory, introducing variables to account for 'the effects of localization' dependent on the above exogenous types of knowledge with the objective of developing a model of the 'endogenous diffusion of new conventions'.

To exemplify their argument historically they use the paradigmatic case of the 'Fordist' wage relation. In 1914, Henry Ford unilaterally institutionalized the US\$5 day in his factories. This initiative represented a doubling of the going rate and was opposed by other industrialists at the time. While some of the benefits accruing to such a decision were appropriable by Ford in terms of increased productivity deriving from labour stability and gains in 'collective learning', the effects of higher wages primarily created externalities favouring other economic actors. The initiative therefore was not followed by other industrialists and Ford, after trying unilaterally to counter the effects of the post-1929 depression with a continuation of his strategy, was finally forced to cut back wages to the prevailing market level. At the level of an individual initiative therefore the Fordist experiment was a failure. Later, however, the emergence of new collective actors – the Auto Workers Union and federal and state governments interested in minimum levels of labour protection – led to the consolidation of a new wage convention, which incorporated some of the basic intuitions of Ford, but was implemented under very different conditions (conflict-based professional relations rather than paternalism, collective rather than plant-by-plant wage agreements).

Remaining within the options of game theory formalization, four types of transitions between conventions are envisaged: (1) conditions of general collapse (i.e. the world wars) provide a favourable context for the emergence of new conventions; (2) a context of invasion – at the limit this would follow the conquest of one country, group, etc., by another, but has also a crucial peaceful variant in the process of expansion of exogenous models ('Americanization' after the Second World War, 'Japonization' today); (3) a dynamic of translation (echoes again of Latour and Callon here) occurs when one convention is convertible into another (continuous to alternative electric current) or cumulatively evolves into another (as in some scientific revolutions); (4) transition by agreement, which, unlike the other types of transition, presupposes *ex ante* co-ordination and the emergence of collective actors.

The key to Boyer and Orléan's argument is that the endogenous diffusion of new conventions depends on overcoming the model of 'social indifferenciation'. Granovetter's network analysis is brought in at this point to demonstrate the social processes which limit the extent of interactions and increase the probability of certain types of contact, determined by different tendencies to approximation. Social network theory therefore is harnessed to reformulate the process of social change within the framework of game theory. After a formal characterization of this model, the authors apply this insight to the analysis of the successful export of Japanese organizational models and wage relations to the United States and United Kingdom. Initially it was thought that Japanese practices would be unable to survive in the individualistically competitive (US) and conflictual (UK) climates of the West. More recently, however, analysis has

shifted to the intellectual challenge presented by the evident success of these transplants, which now extend beyond the performance of individual factories to more general institutional issues such as labour legislation and professional organizations.

In analysing the substantial literature on this question, Boyer and Orléan single out the following characteristics. In the first place, the Japanese investors clearly signal their co-operative strategy of industrial organization. This is followed by in-depth selection procedures aimed at identifying candidates with the appropriate profile, a strategy made possible by the choice of areas of high unemployment for their investments. This intense screening leads to the creaming-off of a work-force which is not representative of the region in question and which creates therefore a protective barrier against the dominant values of the region/society in question. In this sense it represents an alternative strategy to the Williamson transaction-cost approach to the problems of opportunism. Given the superior performance of the Japanese 'transplant' firms, the relevant population increases disproportionately to the region as a whole, opening up the possibility for a broader shift in patterns of co-ordination and the emergence of new conventions.

This analysis, it is argued, must be refined to take into account the potential and limits for what the authors call a 'direct Japanization' of the US or UK economies. Other relevant factors governing the extent of this process would be the pressures towards imitation, clearly evident in the proliferation of new management and organizational method manuals. In addition, the selection processes in conditions of economic growth may either run up against an exhaustion of the supply of appropriate types or lead to a broader conformity with the new behavioural model. Competitive pressures in their turn provide a strong incentive for organizational innovation.

It is at this point that Boyer and Orléan reaffirm the crucial findings of recent 'non-standard' organization theory:

Institutions and forms of organization are not selected according to the single criterion of efficiency but derive also from their role in the co-ordination of actor strategies, together with the distribution of power and income. In this sense, there is now a critical re-examination of the purely economic interpretation of the role of institutions as the supports of increased efficiency or as substitutes for market failure. This is the case not only in sociological research (Granovetter, M & Swedberg, R, 1992) but also in history and economics as can be seen if we compare North D (1981) with North, D. (1991).

(Boyer and Orléan 1994: 242-3)

In their reworking of game theory therefore to account for transitions in patterns of co-ordination and shifts in broad societal conventions, Boyer and Orléan demonstrate the importance of social network analysis à la Granovetter and at the same time reaffirm the interdisciplinary research on the variability of the organizational forms governing economic life.



Convention theory therefore has evolved from a specific analysis of the peculiarity of the wage relation to a general theory of economic organization in which heterogeneity both within and between organizations is a precondition for meeting the twin demands of equity and efficiency underlying any justifiable world of collective action. Such worlds are held together by rules based on an adhesion to commonly valued objects subject to continuous scrutiny. While being open to further elaborations, the approach has tried to delimit the notion of diversity in terms of both historically possible justifiable worlds and organizational typologies. At the same time, it has advanced towards a bridging of the micro and macro through the concepts of collective learning and social-network organization. Its focus on justifiable forms of economic action gives priority to the negotiation of agreements between economic actors, but the methodology does not preclude a more conflict-oriented analysis. This methodology has a common filiation with the interpretative actor-network approach associated with Callon and Latour and proposes a fundamentally interdisciplinary analysis of economic action.

The convergences between convention theory and the new economic sociology are both explicit and evident. We have shown how Granovetter has participated at key moments in the French debates and that the central concept of 'embeddedness', which he reworked in the now famous (1995) article 'Economic action and social structure', has been adopted by both convention and regulation theory. At the same time, economic sociology and convention theory have, in similar fashion, posed themselves as alternatives to transaction-costs analysis, insisting on the variability of institutional forms and their non-reducibility to criteria of efficiency. Social-network analysis, as we have seen above, has also been mobilized to provide an alternative account of the dynamic of social change to that offered within the framework of game theory. Convention theory, however, would see its approach as being broader in scope than economic sociology. The latter has correctly insisted on the importance of the interpersonal social ties underpinning economic co-ordination, captured in the notion of trust, and which broadly corresponds to the 'domestic' world identified in convention theory. Convention theory, on the other hand, aims at a general theory of possible forms of economic co-ordination where agreements extend beyond the confines of social networks. Here the analysis of the emergence of rules and norms based on a common evaluation of instruments and procedures of measurement, which therefore become the embodiment of common values, is crucial, allowing for the stabilization of more impersonal patterns of economic co-ordination. This line of thought owes more to the sociology of innovation literature associated with Callon and Latour, which itself has developed in dialogue with the Anglo-Saxon sociology of science tradition. The broader ambitions of convention theory can be appreciated in our brief review of its application to the analysis of the agrofood system, to which we now turn, where the 'domestic' or social network pattern of economic co-ordination represents one of a variety of possible forms of economic co-ordination.

### Convention theory and its application to the agrofood system

The recent publication of two volumes of research by the French National Institute for Agricultural Research (INRA) provides an ideal opportunity for exploring the influence and pertinence of convention theory for agrofood studies. In addition to its key role in the agricultural sciences, INRA concentrates a critical mass of economic and sociological expertise in privileged conditions for the development of cumulative and inter- or multidisciplinary research. The titles of the two volumes in question: *La Grande Transformation de l'Agriculture* and *Agro-Alimentaire: une économie de la qualité*, both published in 1995, call attention to the significance of the themes under discussion in this article within INRA's research programme – the former echoing the title of Polanyi's classic *The Great Transformation*, and the latter focusing on what we have shown to be the central concept of the convention analysis – the notion of quality.

The strong overlap between regulation and convention theory is evident in the organization of the *Grande Transformation* volume where the general introduction is co-authored by Boyer who also introduces the third section, while the first and second sections have review articles by Thévenot and Salais. In the second volume, the introduction is followed with a lead article by Eymard-Duvernay. We will not attempt to assess the overall contribution of these two volumes nor will we consider the specific application of regulation theory, but will limit our analysis to the identification of aspects of convergence between RT and CT, and to specific themes developed explicitly within the framework of the latter, basing ourselves primarily on the contributions to the *Grande Transformation* volume.

Allaire and Boyer's introduction to this volume discusses the potential for a common research programme applied to the agrofood system whose focus would be the analysis of institutions, organizations and conventions whether from a micro (CT) or sectoral and macro (RT) perspective. Such an orientation would be based on the following propositions: (1) the market as a viable form only under restrictive conditions; (2) the necessity for other forms of co-ordination; (3) the coexistence of multiple forms of co-ordination; and (4) the necessity to distinguish between the emergence and the stabilization of organizational forms.

This last proposition points perhaps to a specific preoccupation of regulation theory with the identification of 'transversal mechanisms' and the use of comparative and historical approaches to distinguish the contingent from the 'necessary'. In the same light, the authors qualify the exceptionalism of the agrofood sector somewhat in their insistence on its temporal dimension, and on the importance of comparative analysis with other economic sectors. Thévenot, however, from the convention perspective, shows himself quite happy with the extrapolation of macro-economic implications from the analysis of specific conventions 'which can contribute to the analysis of new regulation regimes'. And, while convention theory pays more attention to the nuances of the agrofood sector, particularly in its analysis of quality, it, too, is a general theory which can illuminate aspects of the agrofood sector, but without theorizing its specificity

as such. (At this point, we might see the opening for an injection of neo-Schumpeterian thinking in its insistence on the importance of the technological dimension which leads more naturally into a focus on the specific features of production processes in agriculture.)

Allaire and Boyer's evaluation of the results of the INRA research can be organized under three basic headings: (1) the importance of the notion of quality; (2) the centrality and diversity of organizational forms; and (3) the focus on new patterns of institutionalization.

1 In relation to the first of these, it is worth quoting the authors' own words: 'One of the somewhat unexpected convergences concerns the importance of the *social construction of quality*, that is to say of forms of qualifying products, techniques, labour and sectoral mechanisms themselves' (p. 13, italics added). The methodological presuppositions of convention theory are therefore adopted as the microdeterminants of economic activity based on a radically interdisciplinary point of departure. (The 'social construction of quality' is also a major preoccupation of Anglo-Saxon rural geography and sociology (Arce and Marsden 1993; Marsden 1995; Long 1995) based more on an analysis of the contestatory dynamic behind the creation and appropriation of new qualities and an examination of these latter from the standpoint of a discussion on 'value' creation.)

It is argued that markets can function only on the basis of a prior definition of the quality of the products to be exchanged. (Busch (1994, 1995) develops this approach in a very interesting series of articles based on research into the emergence of the canola filière (rape-seed agrofood product chain) in Canada and the US.) Such qualities however are difficult to capture at the sensory level by the user/consumer. The identification of quality therefore requires the intermediation of norms and methods of evaluation, which in their turn are embodied in instruments or 'things' which represent these values. This is at the origin of the notion of treating people and things 'symmetrically' which we have seen is common to both convention and actor-network analysis. While this notion is quite generic and applies equally to artisan and industrial activities, it is not difficult to make a connection between the idea of conventions and the connected ideas of 'routines' and 'expert systems' in Anglo-Saxon sociology whose most representative figure would be Giddens (1991). While for Giddens the intermediation emerges as a means of negotiating complexity, a convergence can be identified in the *underlying uncertainty* provoked both by quality and by complexity and which is at the root of the notion of intermediation. (At this level of analysis, the parallels with the social constructionist analysis of 'risk', an important area of current social science reflection (Beck 1994; Beck, Giddens and Lash 1994; Guivant 1995) can also be made. Quality conventions are at the same time mechanisms for the control of risk. This is particularly evident in the case of food where quality covers both health and taste.)

The qualification of products in its turn presupposes the qualification of the labour and the organizations involved in their production. This reciprocal process is in stark contrast to the neo-classical idea of the transparency and self-

sufficiency of the product where the price mechanism encapsulates all the required information. Here, on the contrary, the product's quality is interpreted in the light of an evaluation of the producers and organizations underwriting the product. Such quality control in an 'economy of quality', it is argued, is guaranteed preferentially through the consolidation of network arrangements and the development of relationships based on trust.

Within the convention literature trust belongs to the 'domestic' world of legitimation, but the notion is also at the heart of Granovetter's sociology, and has been widely explored in the economic sociology literature, particularly influenced by reflections on the Japanese and German economic models in addition to the Italian industrial districts (Lash and Urry 1994; Lorenz 1994). A parallel development has occurred in the new micro-economics literature (Akerlof 1982; Kreps 1990; Williamson 1993) and the struggle over the appropriation of this concept has provided a crucial forum for dialogue between economic sociology, 'heterodox' economics and the new micro-economics.

A further element central to the convention analysis of quality and which emerges as a major theme in the INRA research is the notion of heterogeneous logics governing the process by which quality comes to be defined in any given situation. We have already analysed the roots of this heterogeneity in the simultaneous existence of a variety of legitimate 'worlds' when reviewing Boltanski and Thévenot's *De la justification*, and this notion will be further explored below when considering specific pieces of INRA research. While the convention tradition situates the notion of heterogeneity primarily in a context of negotiation leading to compromise and agreements, the same concept is clearly susceptible to conflict-oriented analysis, which would be more in line with the Anglo-Saxon research in this area developed primarily through encounters with the actor-network analysis of Callon/Latour.

While quality is therefore a fundamental organizing concept for the institutional analysis of economic life, it is at the same time also recognized to be the key axis of current competitive strategies, a theme developed in the INRA research on labelling and normatization.

2 The centrality and variability of organizational forms in the agrofood sector is the second major area of research findings to which Allaire and Boyer draw attention. The convention approach is again seen to provide a very effective account both of this centrality and of the origins of organizational variability in the different contexts of product qualification. The authors are less emphatic however about CT's adequacy in explaining the persistence of heterogeneity, especially within similar types of market. INRA research work included on this theme points to innovation as subverting selection pressures to homogenization (Saunier and Schaller 1995) and Allaire and Boyer explicitly evoke here the neo-Schumpeterian optic within which it is possible to account for different organizational forms within the same competitive environment. Given RT's central preoccupation with the stabilization and persistence of economic forms, whereas CT has developed furthest on the question of their genesis, the evocation at this

point of the neo-Schumpeterian tradition opens up an interesting line of research on the complementarity of these latter two approaches – a theme little or not at all developed in the literature, although we have already drawn attention to the similarity between their respective notions of norms and routines. (The parallels could be extended also to the broader sociological treatment of the concepts of uncertainty, risk and routines as indicated above.)

3 An interpretation of the significance of emerging institutional forms is of course a key focus of RT and a number of contributions on this theme are from a specifically regulationist perspective. It is clear however that for Boyer the conventionalist analysis of the emergence of norms and agreements, particularly to the degree that it is integrated into a perception of new quality criteria restructuring agrofood markets, may provide the local mapping of more global patterns of an emerging institutionalization of the sector. The strength of the conventionalist approach lies in its ability to capture both the heterogeneity *and* the unifying principles behind this movement. The same methodology is able to capture: (1) the process by which artisan markets are integrated into the modern agrofood system (studies on the territorial organization of *appellation d'origine* products (Letablier and Delfosse); (2) the development of up-market 'special label' products involving a redefinition of agro-food product chain organization (Sylvander); and (3) current processes of normatization leading to a new framework for the economic organization of the sector (Valceschini).

While tensions still exist between the more micro and case-study convention approach, with its focus on diversity, and the regulation search for indicators of more long-term, global patterns of institutionalization, the complementarity is forged in a common acceptance of organizational variability and a common recognition that an analysis of quality is perhaps the key to unravelling the dynamics of current economic restructuring.

Allaire and Boyer conclude their article by defining agrofood as a privileged sector for the elaboration and the testing of an institutional economics. Thévenot, in his own contribution to the same volume, argues in parallel fashion that the agrofood sector provides the most notable expression of the centrality of quality as a theoretical issue for the analysis of economic life. As the attractiveness of agrofood exceptionalism, based primarily on elements of technological recalcitrance, wanes (but whose pertinence the present author would still defend), the sector curiously re-emerges now on the frontier as paradigmatic of the new economic relations based on quality.

We will not at this point develop the more general theoretical argument of Thévenot's contribution to this volume since this largely recapitulates ideas which were developed in the second part of this article. Rather we will limit ourselves to drawing out the relevance of research on the agrofood sector as it emerges from his analysis.

The sustained growth of the post-war period, Thévenot argues, led to a naturalistic conception of both market organization and notions of efficiency concealing the specific forms of co-ordination and qualification which served to

justify the dominant patterns of economic organization. Stable growth was made possible by a compromise (which could perhaps be seen as an equivalent of the notion of regulation) between 'industrial' and 'market' forms of co-ordination both inside and outside the firm. According to the terms of this compromise, the values underlying 'industrial' co-ordination tended to predominate, projecting themselves as the justification of all economic activity through the notions of technical progress, scale economies, qualified labour and rigorous adherence to universal standards. The 1980s have led to a reversal in this duo with the 'market' form of co-ordination challenging for hegemony and similarly projecting its values in universalistic fashion under the banner of competitiveness and de-regulation.

The agrofood research carried out by teams in INRA is seen to have a particular significance because it reinforces three crucial aspects of convention theory:

- a) In the first place, the studies on the genesis of *appellation d'origine contrôlée* (AOC) labels developed by Letablier, Delfosse and others are perfect examples of the 'domestic' mode of co-ordination and step-by-step exemplifications of the convention notion of information as anchored in commonly established points of reference, permitting forms of co-ordination involving specific processes of qualification and justification.
- b) These and other studies (the development of *Label Rouge* and the *fermier* labels for poultry) have also demonstrated the presence and importance of other than 'market' modes of economic co-ordination – 'opinion' (reputation, notoriety) in the case of brands and, most notably, the 'domestic' mode in the case of AOC products.
- c) These studies reinforce the thesis that efficiency is to be correlated with variability both at the macro or, in this case, sectoral level of the agrofood system and within any specific productive structure. The pressure towards 'monism' or the universalization of one mode of economic co-ordination – the 'market' in the present conjuncture – can therefore be countered in terms of both equity and efficiency.

This plurality of the forms of economic co-ordination so clearly exemplified in the INRA research on agrofood is crucial for Thévenot: 'The differentiation of a plurality of orders of greatness demonstrates that efficient co-ordination mechanisms are *composite* and offer possibilities for *compromise* between the different orders' (p. 41). Later in the same article he argues that the originality of the 'quality circle', the paradigmatic organizational innovation of the new economy of quality, is its capacity to stimulate simultaneously, but at different points within the organization in question, patterns of co-ordination corresponding to all six of the legitimate worlds analysed above in the 'Key features of convention theory' section. Efficiency through this mobilization of complementarities however is constantly threatened by the tensions between the different worlds. Industrial norms defining rigid standards may frustrate market

forms of co-ordination, as in the classic case of refusing the denomination 'butter' to product innovations offering low-fat alternatives. More recently, Thévenot detects tendencies to extend the application of industrial norms to the management of quality control, which he sees as a possible return to Taylorism in response to the moves towards certification (ISO, etc.). There is a constant threat therefore of 'monism' supplanting variety in economic co-ordination.

In his discussion of the INRA research, Thévenot gives priority to the work on brands and labelling since he sees this as a key exemplification of the compromise between market and other forms of economic co-ordination. (It should be remembered at this point that compromise is used in a non-pejorative sense and that stable compromises become conventions and can be compared to local forms of regulation.) The first stage of market organization is the investment in common references (measurements and standards) to ensure the equivalence of the products exchanged. As Busch (1995) so well notes in his study of rape-seed, measures are in fact calculated as values, betraying their real function as the assignment of common values.

Differentiation via brands and labels introduces a critical new stage into market organization. This is often interpreted as a simple market competition strategy (as indeed in INRA's *Label Rouge* analysis in this volume), but Thévenot argues that in shifting competition to non-price factors other elements of co-ordination are brought to bear. In his words: 'It is co-ordination by opinion which is in question, in which value is a "notoriety" whose support is not the appropriable good but a recognizable sign' (p. 43). Here too there is a tendency to 'monism' in the effort to mobilize other forms of co-ordination in an instrumental sense to underpin the basis of qualification in notoriety or reputation. In the case of agrofood, brand-based publicity tries to position itself on the values of tradition and the notion of 'farm' products, or associates its products with ecological values.

Traditional products however are rooted in domestic mechanisms of co-ordination and justification and are fixed in space (a particular place) and time (a particular tradition). Launched from a basis of interpersonal confidence in the common valuation of specific practices, the products then must be successfully translated (Callon and Latour once again) to engage other actors (INRA scientists even) if they are to be ratified as AOC products. The procedures underlying the domestic mode of co-ordination therefore present limits to the expansion of 'brand' or opinion modes of co-ordination. In a similar fashion, the occupation of ecological spaces by 'brand' strategies is limited by the constraints of civic modes of coordination (technical requirements backed by laws and regulations) which govern the attribution of ecological labels.

Each of these modes of organization exists in a state of tension either resisting encroachment or invading neighbouring territory in a unilateral movement towards the imposition of one mode of economic co-ordination. This is most clearly revealed in the recent debates on 'normalisation' and 'regulation' at the level of the European Community (but could be reproduced at other regional levels – Mercosul, Nafta – or at international level – the FAO's Food Code). Here

there is seen to be a clear divide broadly between 'Latin' Europe, which defends the legitimacy of the domestic mode of economic organization crystallized in AOC or similar forms of legislation, and the 'Anglo-Saxon' countries which favour a combination of 'brands' and full consumer information labelling. Unexpectedly, the legitimacy of the domestic mode has been upheld at European level, primarily perhaps because it is consistent with a broader decision to shift from centralized regulation of food products to a normative policy based on the principle of 'mutual recognition'.

While convention theory insists on the multiplicity of forms of economic co-ordination corresponding to the six legitimate worlds of justified collective action, the 'domestic' world is clearly of particular significance and is perhaps where INRA's application of convention theory has proved strongest. The domestic mode shares with Granovetter's 'embeddedness' concept a common base in the trust emerging from interpersonal relations. It is seen to be broader than this however to the extent that it becomes ratified by decrees and regulations which represent recognition of its criteria of justification well beyond the members of the original community of actors. This process would be assimilable to Callon and Latour's notion of 'acting at a distance'.

Perhaps more significant is the idea that the domestic mode is an integral part of the heterogeneous combination of modes of co-ordination which constitute economic activity as a whole, both within the micro-context of the firm and in the broader relations between economic actors as suppliers, clients and consumers. The underlying point, however, is probably even stronger, suggesting an 'elective affinity' between the domestic mode, with its component of interpersonal trust, and the emerging 'economy of quality'. This has become a strong theme of reflection in recent years. It reappears in all the principal convention contributions – in Salais and Storper's 'worlds of production', in Eymard-Duverney's firm typologies and in Favereau's notion of 'collective learning'. We have already mentioned Lundvall's parallel treatment of this theme, and within Anglo-Saxon economic sociology Lash and Urry (1994) make a strong case for the correlation between the importance of trust and the relevance of quality factors in the dynamic of German economic organization. An ironic echo of the importance of this phenomenon is provided by the 'end of history' liberal spokesperson Fukuyama in his recent discovery of the solidary ties underpinning US society (1995). Even more ironic is the coincidence of this discovery with the equally recent calling in question of the role of solidary ties in Nordic, German and Japanese economic organization which provided the original sources of inspiration for a reflection on the current significance of 'traditional' values in economic life.

## **Conclusion**

In this last section we have tried to show the relevance of the convention approach to an understanding of the current dynamics of agrofood restructuring. We have



singled out the privileged focus on quality, with its differential effect on all sectors of the agrofood system, as a powerful analytical tool. In addition, we have shown how the notion of quality opens up an original institutional perspective on economic analysis with an intrinsically interdisciplinary dynamic. A recognition of the rootedness of economic activity in heterogeneous worlds of justifiable action provides an important wedge with which to resist the universalizing market ideology which dominates current policy proposals for agrofood. At the same time the convention approach is able to capture the specific features of the competitive strategies dominating agrofood restructuring.

More generally in this article we have tried to show the solid foundation which is currently being established in the French literature for an alternative and interdisciplinary research programme into the dynamics of economic life. We have chosen to centre our attention on convention theory since its theoretical nucleus is less well known than regulation theory and also because this latter has increasingly drawn attention to convention theory as the basis for rethinking the micro-macro dynamic. At the same time, CT establishes an important bridge to other currents of analysis in the social sciences, most notably the actor-network and the embeddedness approaches of the new economic sociology. In the course of our exposition we have also drawn attention to the importance of integrating neo-Schumpeterian analysis and the MAUSS school of thought into the construction of this alternative perspective and hope to analyse their respective contributions in a subsequent article.

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### Acknowledgements

I would like to thank the following colleagues for their comments on an earlier version of this article: Fred Buttel, Alain Caillé, François Chesnais, David Goodman, Julia Guivant, Renato Maluf, Terry Marsden and Bernardo Sorj. My thanks go also to the participants in the Seminars at INRA-Paris and the EHESS where I had the opportunity of presenting the ideas contained in this article, and to the editors of *Economy and Society* whose suggestions have greatly improved the final version.

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