

European School of New Institutional Economics (ESNIE)

Towards a Research Design for the Emergence of New Practices

Eva Boxenbaum
Assistant Professor

Department of Organization and Industrial Sociology
Copenhagen Business School
Kilevej 14 A
2000 Frederiksberg
Denmark

Email: Eb.ioa@cbs.dk
Telephone: +45 2323 9932

ESNIE 2006, Korsika

15.-20. maj 2006

Abstract

This paper contrasts three explanatory frameworks on how and why new practices emerge. The three frameworks are sociological institutionalism, evolutionary economics, and new institutional economics. The paper also makes suggestions for a research design that could test their relative explanatory power.

Towards a Research Design for the Emergence of New Practices

Why and how do new business practices emerge? These are questions of concern to all institutionalists, whether they are inclined toward economics or sociology. Though these questions are important, the literature contains no straightforward answers to them (Zollo & Winter, 2002: 341). Each school of institutionalism has elaborated its own account, primarily from deduction. These accounts differ significantly from one another (Abell, 1995). Nevertheless, they have largely escaped scrutiny. They have not been subjected to rigorous analysis, nor to empirical testing. In fact, the emergence of new practices is one of the few sanctuaries left in institutionalism, a sanctuary that may be comforting but that prevents constructive dialogue and the advancement of knowledge. This paper scrutinizes their different accounts and develops a research design to assess their relative explanatory power.

The three explanatory frameworks that I analyze are sociological institutionalism, new institutional economics, and evolutionary economics. These schools are all institutionalist in the sense that they emphasize the reproductive or path-dependent nature of practices. They reject the classic economics stance that new practices result from rational decisions and argue that institutions make for repeated or slowly evolving practices. They agree that institutionalized practices are patterned social interactions that are implicitly reproduced in behavioural routines (tacit knowledge) and cognitively sustained by implicit beliefs and norms (taken-for-granted beliefs and norms). When practices become institutionalized, they fade slowly from the conscious mind. As a consequence, they become difficult to revise or replace. This effect is uncontroversial. The controversy revolves around exceptions to this rule. All three schools of institutionalism recognize that new practices *do* emerge, or change radically, on occasion, and that this phenomenon requires explanation. The explanations they

provide differ significantly from one another. This is hardly surprising since the three schools are embedded in different academic traditions. These traditions shape their respective explanations of how and why practices emerge: sociological institutionalism draws on sociological and psychological theory, new institutional economics has its roots in economics, while evolutionary economics takes inspiration from biology. Their deductive accounts of emergence flow naturally from their respective source of inspiration.

The paper seeks not only to contrast their explanatory frameworks, but also to develop a research design that can illuminate their explanatory power. This is admittedly an ambitious goal, however worthy. It is the next step from conceptual analyses that point out potential complementary. For instance, Eric Brousseau (1999) identifies complementarity between institutional economics and evolutionary economics, while Peter Abell (1995) shows partial alignment between sociological and economic institutionalism. Conceptual analysis can determine whether two explanatory frameworks can be reconciled logically, but empirical inquiry is required to assess whether one or both resonate with the phenomenological world. There are a number of challenges, however, in developing a research design that compares the explanatory power of different frameworks. For one, the emergence of new practices is an elusive topic. It is inherently difficult to identify emerging practices, let alone their causes and related mechanisms. This difficulty may explain, in part, why few empirical studies on the emergence of practices exist in any of the three traditions. Secondly, and perhaps more challenging yet, is the fact that the three accounts rely on different axioms, that is, they make different assumptions as the starting point of inquiry. Accordingly, they target different levels of analysis, select different data sources, and apply different methodologies. This situation makes it difficult, it not outright impossible, to compare them against each other using

classical hypothesis testing. It takes some creative thought to develop an appropriate research design in this case.

The paper proceeds in the following way. The first section presents the three explanatory framework and their account of the emergence of new practices. The second section contrasts their core features, disciplinary foundations, and underlying axioms to identify core areas of contestation. In the third section, the paper outlines the contours of a research design. It identifies specific challenges in empirically assessing the relative explanatory power of the three explanatory frameworks and makes concrete suggestions for how to address them in empirical research. The paper concludes with a future research agenda.

THREE EXPLANATORY FRAMEWORKS

The topic of the emergence of new practices is tentatively addressed in at least three institutionalists schools. Three of these frameworks are targeted for analysis, namely sociological institutionalism, new institutional economics, and evolutionary economics. Let me review each of them to illuminate their account of how and why new practices emerge.

Sociological institutionalism

Sociological institutionalism, or organizational institutionalism, is a sociological approach to institutionalism. It is represented by neoinstitutional theory as originally formulated by Meyer and Rowan (1977) and by DiMaggio and Powell (1983). The roots of neoinstitutional theory goes back to the work of Berger and Luckman (1967) and Philip Selznick (1949).

Ultimately, neoinstitutional theory builds on the work of Emile Durkheim, particularly the notion of holism: Society is a holistic system that is larger than the sum of its parts.

Individuals are cognitively embedded in this system and therefore subject to systemic

dynamics. The natural object of inquiry is the holistic system, not its individual parts. Only in recent years has neoinstitutional theory turned some attention to individuals.

In classical formulations, neoinstitutional theory posits that new practices emerge in response to a major event. Major event upsets the institutional order in an organizational field, which is composed of organizations that interact frequently with one another. Organizational fields are generally resistant to change because the institutional order provides structure in the form of shared beliefs, norms and rules. This structure leads to constant reproduction of practices unless a major event, external to the organizational field, destabilizes the system. When that happens, the organizational system becomes receptive to change and innovation, but only for short periods. The change template is that of a punctuated equilibrium, a window of opportunity that opens up temporarily and closes when the system finds a new equilibrium.

Neoinstitutional theory proposes a few different mechanisms through which new practices emerge in organizational fields. *One proposition* is that new practices come about through diffusion from one organizational field to another (Djelic, 1998). Foreign practices diffuse more easily into the organizational field once it is destabilized, and may hold the key to restore order in the aftermath of the major event. The diffusing practice is not new in an absolute sense since it exists elsewhere, but it is perceived as such in the receiving field and is thus new in a relative sense. A related proposition is that new practices come about when foreign practices are translated to fit the receiving field upon their arrival (Sahlin-Anderson, 1996; Charniawska & Joerges, 1996). These translated practices may be new in a more absolute sense in as much as they are different from the original, diffusing practice. *Another proposition* is that new practices come about through local innovation (Greenwood, Suddaby & Hinings, 2002). Local innovation is an unintended result of interorganizational

collaboration (Lawrence, Hardy & Phillips, 2002), often occurring at the interstice of organizational fields (Morrill, forthcoming). In essence, neoinstitutional theory conceptualizes the emergence of new practices as the unintentional product of a jolted system trying to regain equilibrium.

Evolutionary Economics

Like sociological institutionalism, evolutionary economics is a systemic perspective. The theory is originally formulated by Nelson and Winter (1982) and developed further by Dosi (1988). Evolutionary economics seeks to illuminate the dynamics of the economic system through analysis of selection processes and mutations in individual behavior (Brousseau, 1999, p. 6-7). Practices are seen as evolving slowly as a response to improved organizational competencies. They improve when individuals learn from selection processes and adjust their routines accordingly, the result being slowly evolving, path-dependent practices.

Evolutionary economics borrows its conceptual framework from biology, particularly Darwinism, and applies it to organizational behavior. New practices are seen as emerging through an evolutionary process that comprises the stages of variation, selection, and retention. In the variation stage, where new practices emerge, “individuals or groups of them generate a set of ideas on how to approach old problems in novel ways or to tackle relatively new challenges. This happens on the basis of a combination of external stimuli (competitors’ initiatives, normative changes, scientific discoveries, etc.) with internally generated information derived from the organization’s existing routines” (Zollo & Winter, 2002: 343). That is, individuals generate new ideas when they take inspiration from the environment and combine it with reflection on their experience. In the selection stage, “these sets of ideas, initially in embryonic and partly tacit form, are then subject to internal selection pressures

aimed at the evaluation of their potential for enhancing the effectiveness of existing routines or the opportunity to form new ones (Nonaka 1994)” (ibid). In other words, individuals select those ideas that they assess to be promising for improving organizational practice. Finally, in the retention stage, individuals diffuse the selected ideas across the organization and seek to implement them in practice.

New Institutional Economics

New institutional economics is perhaps the least systemic of the three explanatory frameworks. Individuals are independent units here that evaluate and adjust institutions to make them more optimal. New institutional economics, or transaction cost economics, was originally formulated by Williamson (1985) and North (1990), building on the work of Coase (1937). The analytical focus is the transaction. In an effort to overcome coordination difficulties, individuals develop institutionalized structures (Brousseau, 1999). They use bounded rationality to calculate structural arrangements that they believe will minimize the firm’s transaction costs. Their calculation is a form of selection mechanism that eliminates inefficient structures of coordination (ibid). The calculation takes into account both the characteristics of the transactions and the institutional environment.

According to North (1990), new practices emerge essentially when economic agents innovate in the pursuit of lowering transaction costs. Their innovations destabilize existing governance structures and make them evolve. The innovations also impact on the larger institutional environment, which is political, more than economic, in nature. Governance structures and the institutional environment evolve separately, but they exercise an influence on one another and are both path dependent (Brousseau, 1999: 10). The institutional environment is an

evolutionary product of historical events, while governance structures are the evolutionary product of constant improvements by economic agents.

In essence, individuals adopt new practices because they discover more efficient ways to reach an economic goal. The theory predicts that individuals construe of a number of alternative options before they adopt a new business practice. They generate alternative practices spontaneously and scan the environment regularly for best practices. Technological innovations, novel ideas, or best practices provide on-going inspiration for new practices that may rationalize business interactions and minimize transaction costs. Since they are also pragmatic, individuals are more inclined to search for best practices that have already proved successful elsewhere than they are to invent new practices from scratch. In any event, they conduct a search before they select those practices that they perceive to be superior relative to current practice as measured in terms of efficacy or cost-effectiveness of transaction. Sometimes the search stops short because a sufficing solution has been identified, that is, a solution that seems sufficiently efficacious or cost-efficient to meet the purpose at hand. Individuals are expected to adopt new practices if they believe it will enhance the financial performance or the survival prospects of the firm.

TOWARDS A RESEARCH DESIGN

The purpose of an empirical analysis is to examine to which extent the three explanatory frameworks hold true against empirical data. The idea is to search for support of each prediction. Certainly, it is not possible to prove causality from observed correlations, but it certainly lends more support to a framework if the independent variable is present in the data than if it is not. The ambition is to develop a research design that test the face validity of the three theories based on empirical data rather than on deduction alone.

A good research design should comprise at least four elements. *The first element* pertains to axioms, the assumptions that they make as starting points for analysis. *The second element* is to clearly identify which factor(s) each explanatory framework propose to cause the emergence of new business practices, and which mechanisms they propose as leading to it. *The third element* is to specify the indicators, that is, to delimit which empirical observations correspond to each causal factor and each mechanism. The idea is to subsequently comb the data for these indicators. If we find traces of one explanatory framework, then we lend support to this framework and reject the others. If we, in contrast, find traces of indicators from more than one framework, then it calls for integration of them and for further research on the interaction between the identified causal factors and related mechanisms. *The fourth element* is to determine which kind of data are required to potentially find support for each causal factor. Indicators may occur at multiple levels of analysis and it is therefore important to collect data at all the relevant levels of analysis.

Axioms

One of the first challenges in developing a research design is the fact that the three explanatory frameworks flow from different axioms. Axioms are those fundamental claims about reality upon which coherent theories are built. They are assumed to be true and therefore shielded from scrutiny. They are the very starting point of empirical inquiry and shape research designs in fundamental ways. It is rather difficult to agree on a research design and on test criteria when there are different axioms in play. The reason is that axioms dictate the appropriate level of analysis. They also shape research questions, data sources, and analytical procedures. It is thus a challenge to design research in a way that accommodates all three frameworks. A prerequisite is certainly to identify key areas of divergence among the frameworks.

The three frameworks have intellectual roots in respectively sociology, biology, and economics. These disciplines shape their respective assumptions about the relationship between human agency and social structure. Sociological institutionalism is on one extreme of this axis, positioning individuals as almost fully embedded in social structure. Individuals are construed as part and parcel of the social group whose institutional structures shape their cognition to an important degree. This position is associated with ‘holism’, the stance that society is more than the sum of its parts. Evolutionary economics positions individuals as learning from social structure, which is an intermediate position. New institutional economics is located at the other end of the axis in as much as it places individuals outside social structure, as deliberate creators of it. This position is associated with ‘methodological individualism’, making the individual a natural unit of analysis. The two latter advocates bounded rationality, meaning that individuals do not exercise full cognitive freedom because their rationality is bounded by limited information and processing capacity. Moreover, individuals may not be fully motivated to use their cognitive freedom.

Causal relations and mechanisms

This section outlines the key causal relationships and related mechanisms for each framework. They each propose variables that cause the emergence of new practices, be they entirely novel or simply new in a given setting. They also propose different mechanisms for how this causal relationship unfolds. The idea is to boil the theories down to causal relationships that can be investigated empirically.

Indicators

This section specifies which empirical observations would confirm each explanatory framework. The ambition is to select discrete empirical indicators that are valid representations of each independent variable and related mechanism. The three frameworks make different predictions about the independent variable that causes new business practices to be introduced in institutionalized settings. Sociological institutionalism proposes that it is a major event that unsettles the institutional order. Evolutionary economics makes it a matter of learning from experience, while new institutional economics claims that the causal variable is individual assessment of which structural arrangements are most cost-efficient for the firm. The challenge is to select indicators of the three independent variables, i.e. to determine which empirical observations would lend support to each causal variable.

The prediction of sociological institutionalism would be confirmed if the institutional order is destabilized by a major event shortly before the introduction of a new business practice. The new business practice may originate abroad or it may be the unintended effect of cross-fertilization between firms or organizational fields. We can lend support to this framework if the new practice resonates with recent or concurrent changes at the supraorganizational level.

Evolutionary economics would be confirmed if individuals introduce new practices as a result of recent learning from experience. We should expect to see improved competencies that relate to the new practice in terms of both timing and content. There should be a range of alternatives from which the most promising is selected.

New institutional economics would be confirmed if individuals contemplate different alternatives before introducing a new business practice. We would expect that they scan the environment for alternative practices and compare their cost-efficiency before adopting one of them on rational grounds. They may also decide to custom-build a new practice. In either case, we should expect to see a presentation of two or more alternative practices, followed by a rational comparison and decision-making process. If different practices are compared on efficiency groups prior to the introduction of a new business practice, then we lend support to new institutional economics.

Data sources

The fourth element is to select data sources that allow for the potential detection of the identified indicators. First of all, it is important to have more than one case study to minimize the risk that the findings are idiosyncratic. Double case studies curb the risk of bias and coincidence that are associated with single case studies. Secondly, it is important to collect data from multiple levels of analysis. The independent variables stretch from the individual to the supraorganizational level of analysis, hence data from only one level of analysis will not encompass all three frameworks. Data from the individual level of analysis is required to accommodate new institutional economics. Individual interviews may serve this purpose. Data from the organizational level of analysis is needed for evolutionary economics. Here we may use corporate policies and reports. Data from the societal level of analysis is required to accommodate sociological institutionalism. Newspaper articles and publicly available government documents may be useful for this purpose. These multi-level data constitute a collective testing ground for the three predictions.

References

- Abell, P. 1995. The new institutionalism and rational choice theory. In W.R. Scott & S. Christensen (Eds.), *The institutional construction of organizations* (pp.3-14). Thousand Oaks: Sage publications.
- Berger, P., & Luckmann, T. 1967. *The social construction of reality*. Garden City, NY: Doubleday.
- Brousseau, E. 1997. Néo-institutionnalisme et Évolutionnisme: Quelles Convergences ? Final draft for version to appear in *Economies et Sociétés*, HS 35(1), 1/1999.
- Coase, R. H. 1937. The Nature of the Firm. *Economica*, NS4, 1937: 386-405.
- Czarniawska, B., & Joerges, B. 1996. 'Travels of ideas' in B. Czarniawska & G. Sevón (Eds.), *Translating Organizational Change* (pp. 13-48). Berlin, Walter de Gruyter.
- DiMaggio, P.J., & Powell, W. 1983. The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48: 147-160.
- Djelic, M.-L. 1998. *Exporting the American model: The postwar transformation of European Business*. Oxford: Oxford University Press.
- Dosi, G. 1988. Sources, procedures and microeconomics effects of innovation. *Journal of Economic Literature*, 26(3): 1120-1171.
- Greenwood, R., Suddaby, R. & Hinings, C.R. 2002. Theorizing change: the role of professional associations in the transformation of institutional fields. *Academy of Management Journal*, 45 (1), 58-80
- Lawrence, T.B., Hardy, C., & Phillips, N. 2002. Institutional effects of interorganizational collaboration: the emergence of proto-institutions. *Academy of Management Journal*, 45(1), 281-291.
- Meyer, J., & Rowan, B. 1977. Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83: 340-363.
- Morrill, C. Forthcoming. Institutional change and interstitial emergence: the growth of alternative dispute resolution in American law, 1965-95. In W.W. Powell & D.L. Jones (Eds.), *How Institutions Change*. Chicago: University of Chicago Press.
- Nelson, R.R., & Winter, S.G. 1982. *An evolutionary theory of economic change*. Cambridge, (Mass): Belknap.
- North, D.C. 1990. *Institutions, institutional change and economic performance*. Cambridge, UK: Cambridge University Press.

Sahlin-Anderson, K. 1996. Imitating by editing success: the construction of organization fields. In Czarniawska & Sevón (Eds.): *Translating organizational change*. Berlin/ New York: Walter de Gruyter.

Selznick, P. 1949. *TVA and the grass roots: a study in the sociology of formal organization*. California: Berkeley University Press.

Williamson, O. E. 1985. *The economic institutions of capitalism*. New York: The Free Press.

Zollo, M. & Winter, S. 2002. Deliberate learning and the evolution of dynamic capabilities. *Organization Science* 13(3): 339–351.