

Political Entrepreneurship and Institutional Change: an Evolutionary Approach

Hederer, Christian Federal Ministry of Economics and Labour, Vienna, Austria, Witten/Herdecke University, Germany

September 2007

Online at http://mpra.ub.uni-muenchen.de/8249/ MPRA Paper No. 8249, posted 12. April 2008 / 20:25

Political entrepreneurship and institutional change: an evolutionary perspective

Paper prepared for EAEPE conference, Porto, November 2007 CHRISTIAN HEDERER¹ Federal Ministry of Economics and Labour, Vienna, Austria, and Faculty of Economics and Management, Witten/Herdecke University, Germany

Abstract

The paper is a contribution to the theory of institutional change. Using a processbased, evolutionary framework, a comparative analysis of economic and political entrepreneurship is provided and implications are derived for the role of political entrepreneurship, and the element of agency in general, for the evolution of formal institutions and institutional innovation.

Introduction

In the fast-changing environments of modern economies, a systematic analysis of the appearance and implementation of novelty and innovation becomes a central question of economic analysis. In this context, the concept of entrepreneurship as a driver of innovation has gained increasing prominence and found a host of applications. However, for achieving a fuller analysis of economic change, the perspective cannot and should not be restricted to the purely economic realm. In particular, political systems are increasingly subject to competitive pressure, raising the question of their openness to institutional innovation and their adaptability to changing environments. The paper contributes to the analysis of this problem by investigating in what respects an analysis of the entrepreneurial process in the economic realm can help to improve our theoretical understanding of institutional change and institutional innovation. We use an evolutionary, process-oriented perspective to analyse basic structural similiarities and differences between entrepreneurial activity in the economic and the political realm, and derive some perspectives on an agency-based theory of institutional change.

The paper is organized in three main parts. The first part provides a brief overview of concepts of entrepreneurship in the economic and political realm. The second part forms the thrust of the analysis; it develops a process-based comparative analysis of innovation and entrepreneurship in the economic and political realm, starting from a simple scenario of consumers and voters and subsequently introducing resource constraints, investment in different kinds of capital, and the role of individual decision making. Building on this, the third part takes a closer look at the role of political entrepreneurship in institutional change. An outlook on avenues for future research concludes.

¹ Corresponding address: chhederer@gmail.com

1. Economic and political entrepreneurship: a brief survey

The notion of entrepreneurship has a venerable history in economics, having been used already by Cantillon, Say, Smith and Mill (Schumpeter 1949). In 20th century economics, partly in reaction to the specific theoretical challenges posed by the modern capitalist system which allowed for a seperation between the financing and leadership / conduct of an enterprise, the entrepreneurial function became firmly associated with concepts of economic change, innovation, and fundamental uncertainty. The importance of forecasting and individual judgement is stressed by Alfred Marshall (1920; see for a theoretical discussion Loasby 1982 and for a more recent influental approach along these lines Casson 2003) and, in a theoretically more stringent connection to the problem of uncertainty, by Frank Knight (1921).

The seminal depiction of entrepreneurship as a driver of innovation is due to Joseph Schumpeter (1934), who equated the entrepreneurial function with the discontinuous introduction of "new combinations" into an economic system by creative and ambitious individuals, where a clear delineation is drawn to the "inventor", who generates a new idea as such but has no role in implementing it. In his subsequent work, Schumpeter further differentiated, and partly modified, his concept of entrepreneurship (see e.g. 1928, 1947, 1949): in line with the structural features of modern capitalist systems outlined above, he sharply differentiated the risk-taking function (the capitalist) from the innovative function (the entrepreneur); to the extent that the entrepreneur engages in risk taking, e.g. by partly financing the establishment of an innovative enterprise, he becomes a "capitalist" himself (see also Harper 2003, p. 8 f). Furthermore, Schumpeter stressed the functional element of entrepreneurship (which also allows for collective entities as taking the entrepreneurial role) as against earlier, romantically inspired heroic depictions of exceptional individuals.

Schumpeter's stress on the innovative function of entrepreneurship bears close resemblance to Hayek's (1945) criticism of equilibrium-oriented neoclassical economics, which fundamentally rests on the notion of decentrally dispersed knowledge that can only be developed and extended by entrepreneurial individuals looking for new opportunities and testing them in the context of the market mechanism (see for a clearer exposition of the entrepreneurial learning mechanism also Harper 1996). Hayek himself does not mention the entrepreneur, but it is clear that his work, connected with Schumpeter's and Knight's, places the entrepreneurship concept in an antagonistic position to standard microeconomic theory which lacks a systematic incorporation of innovation and fundamental uncertainty, as has been repeatedly stressed particularly by authors in the Austrian tradition of economics. A certain – albeit perhaps unintentional – *rapprochement* is provided by the influental work of Kirzner (1973): Kirzner's entrepreneur is essentially an arbitrageur

characterised by his "alertness" to price differences. Consequently, the entrepreneur's economic function is to exploit *existing* profit opportunities and, as a result, to drive equilibrating processes – and not, as in the Schumpeterian perspective, to introduce novelty into the economic system and *create* opportunities, instigating at least temporary *dis*equilibrating tendencies. In later work, however, Kirzner (1999) sees Schumpeter's and his own notion of entrepreneurship as complementary insofar as (i) his concept only abstracts from, but does not negate, innovation processes; and (ii) the Schumpeterian entrepreneur can also be regarded as taking an equilibrating function, since he is instrumental in implementing e.g. a new technology that by its mere emergence has already rendered the old technology untenable and dismembered from a state of general equilibrium.

In summary, it can be said that the theoretical association of entrepreneurship with innovation under conditions of fundamental uncertainty is widely accepted in economics (to the extent that it plays a theoretical role at all; that is, primarily in Austrian and evolutionary concepts of economics). However, it needs to be noted that beyond economics proper, the entrepreneurship concept has become an important part of economic sociology and business studies as well; there, the primary definitional criterion is the establishment of a new firm (see e.g. Aldrich 2005). Sociological studies of entrepreneurship have also stressed the social preconditions for entrepreneurial success, such as initial endowment with social and financial capital (e.g. Anderson / Miller 2003).

Turning to the political realm, it is remarkable that neither of the seminal works on economic entrepreneurship explicitly transfers the concept, although Schumpeter's (1942) elite theory of democratic leadership appears to be foundational to many modern approaches. Schumpeter famously depicted democracy as a system of contested leadership, with political elites being able to influence and mold public opinion. Building on this line of thought, the concept of political entrepreneurship was initiated in the 1960s (see for a seminal contribution Dahl 1961) and subsequently gained prominence in the political and administrative sciences.

Most of the modern literature on political entrepreneurship relates the concept to some notion of institutional innovation and/or innovation in the public sector, thereby following the Schumpeterian tradition. In detail, however, the literature appears to be fragmented and riddled by definitional heterogeneity. Some accounts define political entrepreneurship as a subcase of a more general concepts of "institutional entrepreneurship" (e.g. Campbell 2004, Fligstein 2001, Beckert 1999) or "public entrepreneurship" (e.g. Schnellenbach 2007, Kuhnert 2001, Roberts/King 1991), and political entrepreneurs are delineated as being located in the political realm in a narrow sense, e.g. as legislators (López 2002), leaders in government in general (Roberts/King 1991), or individuals running for political office (François 2003, Wohlgemuth 2000). An alternative definition of public entrepreneurship, however, restrains the concept to innovative activity in bureaucracy or (roughly) the executive branch of government (e.g. Edwards et al. 2002); other authors call this category

"bureaucratic" (or "executive" or "managerial") entrepreneurship (e.g. Schneider/Teske 1995, Roberts/King 1991). Finally, some authors introduce the notion of "policy entrepreneurship" for actors whose activities directly focus on the implementation of new policies (e.g. Schnellenbach 2007, Mintrom 1997, Kingdon 1984). Roberts and King (1991) differentiate policy entrepreneurs from other categories by their social location outside the formal governmental system.

The specific role and activities of political entrepreneurs (given that we cling to this term as the overaching notion) are also described in a quite diverse fashion; several patterns and commonalities, however, can be identified. First, there appears to be a certain differentiation between process- and result-oriented approaches. As examples for the latter, Sheingate (2003) depicts political entrepreneurs as "individuals whose creative acts have transformative effects on politics, policies, or institutions" (p. 185); Schneider/Teske (1992) define political entrepreneurs as "individuals who change the direction and flow of politics". Authors taking a processoriented approach stress the investment character of political entrepreneurship, such as Weissert (1991), who defines policy entrepreneurs as "persons willing to use their own personal resources of expertise, persistence, and skill to achieve certain policies they favor" (p. 263 f); Kingdon (1984), who depicts political entrepreneurs as "people willing to invest their resources in return for future policies that they favor" (p. 214); or López (2002), who presents legislators as political entrepreneurs investing in different kinds of political capital that are (at least partly) in a trade-off relationship. Relating to this, Schneider and Teske (1995) explicitly include the risk-taking element (stemming from the investment of financial as well as reputational and emotional capital) into their key characteristics of political entrepreneurship and thus depart from the Schumpeterian distinction in the economic realm. Finally, Roberts and King (1991) take a certain medium position, giving a detailed account of different entrepreneurial activities in introducing and lobbying for an institutional innovation and defining the implementation of an innovation as entrepreneurial "success".

As a second point, there are commonalities in outlining specific activities in the political entrepreneurial process. These comprise: the discovery of political preferences and needs of the electorate as well as of political decision makers (Schneider/Teske 1995, Wohlgemuth 2000, François 2003); the identification, selection and framing of problems and solutions (Roberts/King 1991, Kingdon 1984); the dissemination and "brokering" of ideas between different social networks and epistemic communities, e.g. between science and politics (Campbell 2004); the mobilization of political support and formation of coalitions on different levels (Kuhnert 2001, Scheider/Teske 1995, Roberts/King 1991); the mobilization of the media; the pushing of proposals for institutional innovation on the agenda of political decision makers (Kingdon 1984); the development of a political strategy (Roberts/King 1991) and the creation and/or recognition of "windows of opportunity" for institutional change (Kingdon 1984); the implementation and consolidation of innovations into lasting institutional change (Sheingate 2003). All these categories

can in principle be subsumed under the Schumpeterian category of "introducing new combinations", excluding the "invention" stage of ideas for institutional change as such (which will regularly be very hard to identify in empirical terms, comp. e.g. Kingdon 1984, 75 ff).

Finally, the literature contains somewhat diverging views on the normative assessment of political entrepreneurship. One strand takes a principally positive assessment, stressing the potential of political entrepreneurship to overcome institutional rigidities and institute progressive change, possibly in view of competitive institutional pressures (Schneider/Teske 1995, Sheingate 2003). Others, while in principle acknowledging the positive potential of political entrepreneurship, take a neutral view, partly emphasising framework conditions and incentives that channel entrepreneurial effort (Baumol 1990; Kuhnert 2001, Roberts/King 1991). Finally, a negative assessment prevails in some accounts explicitly drawing on the Austrian economics tradition (e.g. Holcombe 2002, Campbell 1999); here, for principal reasons political entrepreneurs are seen as rent seekers who draw on the state's power to enforce redistribution, generating opportunities to obtain economic rents. In a similar line of thinking, Schnellenbach (2007) warns of the non-benevolent potential of political entrepreneurs acting unconstrained by institutional checks and balances.

2. The process of economic and political entrepreneurship: a comparative analysis

Having discussed some core notions of economic and political entrepreneurship, we now turn to a closer investigation of analogies and differences from an evolutionary perspective. As a baseline, this perspective implies to look at the change of social (sub-)systems over time as a process that is characterised by the endogenous generation of novelty (variation), the impact and spread of which is restricted by some resource constraint (selection); variations surviving the selection process stabilize or spread over time by some structural features of the mechanism (retention). Based on this, a comparative analysis of some general structural features of entrepreneurial innovation in economic and political processes is presented with the aim of developing a unified and more precise notion on the role and scope of political entrepreneurship than can be found in the existing literature. Given the evolutionary framework, the analysis follows the Schumpeterian tradition of associating entrepreneurship with innovative activity (where the details will be developed during the analysis). For reasons of expositional simplicity, the analysis is largely restricted to the change of *formal* institutions (without disregarding, however, the important role of informal institutions in the process leading to formal change) and legislative evolution. Given this restriction, we also do not differentiate between various

categories of entrepreneurship in the political realm, keeping a general concept of "political entrepreneurship" as dichotomous to "economic entrepreneurship" instead.

The basic analogy

To investigate the analogy between entrepreneurial processes in the economic and political realm, we start with a basic scenario in which the entrepreneur acts on a purely individual and autonomous basis, ignoring problems of organization and the acquisition of resources. A stylized sequence of entrepreneurial innovation in the economic realm then is the following: the entrepreneur introduces a new combination on the market. This results in some change in market supply (following Schumpeter's (1934) classic distinction, we can distinguish the cases of (i) the introduction of a new good; (ii) the introduction of a new method of production, which would ideally allow more efficient production and change the market price; (iii) the opening of a new market; (iv) the conquest of new input sources, with the same effect as in case (ii); and (v) the change of organisation in the respective industry). Given the fact of decentrally dispersed knowledge about consumer preferences, this is a decision under fundamental uncertainty and its consequences from the entrepreneur's point of view can only be judged ex post. The adaptation criterion, or measure of fitness, for the innovation is the amount of profit it can generate. A new product that does not fulfil a certain profit threshold will normally disappear from the market, that is, it will be "selected"; if it does fulfil the criterion, it will be "retained", the underlying mechanism being that the entrepreneur, learning the profit feedback signal, will normally decide to keep the innovation on the market and act accordingly. The profit signal itself, in turn, derives from a large set of decentralized and uncoordinated decisions that determine the market price. This is the standard Hayekian discovery process: by trying out the viability of different innovations on the market whose desirability they cannot judge in advance, entrepreneurs create knowledge and eventually raise the performance of the economic system. The maintenance of a stream of profits as a retention criterion is then eventually complemented by some institutional mechanism granting a temporary monopoly position to the entrepreneur (such as a patent).

Importantly, consumer preferences themselves are not exogenous to the process and prone to be influenced by the entrepreneur. The entrepreneur's ability to recognize and exploit business opportunities, in turn, will be influenced by his initial endowment with financial and social capital and by certain personal abilities and characteristics, as the ample empirical literature on entrepreneurship shows (see for a survey Aldrich 2005).

The structural analogy of this simple process to the political realm has been outlined, among others, by Wohlgemuth (2000) and François (2003). The political entrepreneur introduces a new combination into the policy process, e.g. a new political program or a concrete proposal for institutional reform. Assuming that the political system is democratic (which is taken for granted throughout in the relevant literature), the adaptation criterion / measure of fitness for political innovation is the share of the popular vote in elections; similarly to the economic market, an innovation failing to reach a certain threshold in this respect (for example, a minimum voter share to enter parliament) will be selected from the political process since it provides a signal to the entrepreneur to discontinue his activity.² In further analogy, political entrepreneurs are fundamentally ignorant about voter preferences; there is thus a knowledge-creating discovery process of voters' preferences for institutional change. The political system then grants a temporary monopoly position to the winner of the electoral contest, supposedly allowing him to instigate reform and shield it from reversal; the retention mechanism for political innovation in this context thereby depends on certain institutional features of the democratic political system. Similarly to the economic realm, political entrepreneurs have the possibility to directly impact on voters' preferences by various means of communication. Also, the ability to exploit, or create, a "political opportunity" in the sense of discovering political demand will be connected to personal as well as social characteristics of the entrepreneur.

How robust is this analogy? A main problem, of course, is the questionable functional similarity of consumer choice and political voting. One common criticism is that the quality of voting decisions will generally be low (e.g. François 2003, p. 156); apart from general deviations from rational choice such as herd behavior, loss aversion or a status quo bias, due to their limited influence voters will also tend to invest less cognitive resources into getting to an informed decision (Schumpeter 1942, p. 261). In an evolutionary, process-based framework, however, these objections do not seem weigh very heavily: neither can a standard of an "optimal" degree of rational decision making be determined *a priori* nor is it clear that consumer behavior in the economic realm would regularly be up to such a standard. One potential criterion in this respect would be preference intensity, that is, a degree of personal affectedness, which can clearly be considerable in various political contexts (Schumpeter 1942, p. 258 ff).

Another, deeper objection is that compared to consumer decisions, voting is by its nature infrequent and discontinuous, which seriously hampers its knowledge-creating role in the political system. However, to a certain extent this problem exists more in degree than in principle: In general evolutionary terms, it can simply be described as the frequency or rhythm by which a certain selection procedure applies. Seen from this perspective, a large range of variation is conceivable, and empirically observable, in the political as well as the economic realm: voting cycles are substantially shortened, for example, in systems resting on elements of direct democracy, or

² Of course, this is a strong simplification because the entrepreneur might decide to continue his activity given that there are no cogent resource constraints that prevent him from doing so. The same, albeit less evident, and empirically less important, is true for the economic entrepreneur. We discuss this point further below.

providing for elections on different federal levels; moreover, their knowledgerevealing function can at least partly be substituted by opinion polls or surveys (François 2003). On the other hand, the selection mechanism weeding out insufficiently fit innovations on the market can be seriously delayed e.g. in the case of asymmetric information, or of certain classes of goods that by their nature are sold and "tested" only infrequently (such as large machinery, aeroplanes etc.). In sum, the comparative speed and efficiency of the knowledge-creating process in the economic and political realm appears to be highly contingent on concrete circumstances.

A related argument is that in standard democratic elections, a choice exists only between "packages" of programs and proposals, without enabling voters to differentiate between specific issues. While this is certain to impede on the knowledge-generating function of the competitive process in politics, again analogies on economic markets can readily be found. In fact, many economic goods constitute a bundle of characteristics and properties (or "attributes", see e.g. Lancaster 1966) that can in principle be separated along their effects on consumers' utility levels but can only be acquired on a take-it-or-leave-it basis. Moreover, if the voting process is not primarily seen as a device to select political leaders and their programmes on a winner-takes-all basis (such as in majoritarian systems) but as enabling voters to express their opinions on a certain range of issues represented by different parties (such as in plurality systems), voting can potentially serve as a fairly differentiated device of preference revelation (François 2003, p. 157).

To add another aspect to the analogy, as already mentioned there is a clear similarity between a temporary political monopoly implied by the low frequency of electoral decisions and a temporary institutional monopoly eventually granted to a Schumpeterian economic entrepreneur, a point that is investigated in Wohlgemuth (2000) and Sheingate (2003). For example, similarly to the question of patenting in the economic realm it can be discussed how to balance the positive and negative effects of a certain incumbency period on institutional innovation: a long electoral cycle clearly creates various opportunities for the incumbent to consolidate his power and thereby raises entry barriers, but on the other hand it increases incentives for the political entrepreneur to run for office because the stakes to gain in terms of power and the potential to implement certain innovations are higher. Due to their temporary institutional design, both economic and political monopoly will be "contested": competing firms will prepare to enter the market as soon as the institutional impediment disappears; political parties rarely completely disappear from the arena after electoral defeat but continue to be present as oppositional forces, exerting ideational as well as (depending on the constitutional system of checks and balances) material influence.

Despite these structural similarities between economic and political processes, however, the infrequency of voting does point to one fundamental difference between institutional change seen as a political "good" and market commodities: this is the fact that the former always requires some kind of collective decision of a minority of individuals occupying institutional positions that entitle them to enact such a change.³ Taking this into account, the direct analogy between consumer choice and the political voting decision turns problematic since in itself, the latter does not select for institutional innovation but merely creates a – albeit often essential – *precondition* for instigating such a change. Here, a different, but theoretically familiar, perspective of politics enters the picture: institutional change is depicted as primarily driven by interest groups, lobbies, and other influental actors that provide a range of incentives and rewards to politicians in order to obtain decisions in their favour. More generally, institutional change is frequently preceded by intense communication and negotiation processes whose outcome is highly uncertain and which often involve substantial modifications of initial concepts and proposals.

Of course, this essential feature of democratic systems can be theoretically integrated into a market-process concept of politics by arguing that the principal-agent problem between voters and politicians as such, being a mere special case of informational asymmetry, does not invalidate the fundamental analogy between the political and economic realm, and will in fact be mitigated by the role of public opinion. Nevertheless, describing the political process and the entrepreneurial activity associated with it as a mere electoral contest clearly misses an important part of the picture. In fact, the problem arises already on the definitional level of entrepreneurship: if we want to carry over Schumpeter's (1934) classic concept (implementation of new combinations into a given system in a discontinuous fashion) to the political realm, it becomes evident that the definitional basis of entrepreneurial activity cannot be the maximization of votes alone, but has to include some reference to the *realisation* of (discontinuous) institutional change (as most definitions of political entrepreurship, as outlined, in fact do). Thus, the implicit notion of the political entrepreneur as a creative politician running for office is too narrow insofar as it disregards, first, that electoral success is not synonymous with the achievement of institutional change, and second, that there are important other channels to reach that aim that often are only very remotely connected to the electoral process.⁴ Therefore, the analytical basis for comparing economic and political entrepreneurship needs to be broadened and generalized.

³ In the following, we will depict this minority as "political decision makers". To keep the argument straightforward, we focus on the main case of democratic legislative change, ignoring political dictatorship as well as the realm of political administration, where single-authority or quasi-dictatorial decisionmaking is frequent. In reality, of course, neither the dictator nor the administrator are able to decree decisions in a social vacuum (that is, they will consult with, and be influenced, by various actors), although being entitled to do from a purely formal point of view.

⁴ For example, Roberts and King's (1991) detailed account of a Canadian school reform bill as an entrepreneurial project does not contain any direct reference to the electorate at all. Given the institutional features of most modern democracies, we can conjecture that a direct focus on political decision makers will be an adequate perspective for a majority of institutional reform projects.

A richer picture of economic entrepreneurship and the market process: acquisition of resources and individual decision making

As a first step, we take into account the fact that entrepreneurs normally have to mobilize external resources to achieve their aim; this refers to the standard theoretical separation of roles between the provider of resources (capitalist) and the entrepreneurial decision maker that was outlined above. Based on this, we can now analyze a richer process typology in the economic realm, where for reasons of simplicity we concentrate on Schumpeter's (1934) case (i), the introduction of a new good. A normal sequence for the introduction of an innovation, then, is that the entrepreneur convinces some financier(-s) to invest into his project, enabling him to establish a new firm and, eventually, to build up a stock of human and physical capital allowing for the production and marketization of the new good.

Thus, a second market, the market for financial funds, enters the picture, which can again be analyzed within a standard evolutionary framework. The entrepreneur's project is introduced on the demand side of the market as variation in a population of projects competing for scarce funds; capital suppliers carry out a selection process which is itself characterised by fundamental uncertainty.⁵ In the standard case of yield-maximizing capital suppliers, then, the fitness measure for the selected project will again be the amount of profit that is generated from the goods market. Therefore, profit is a signal for behavioral retention not only for the goods market, but also the capital market (implying e.g. additional lending for an expansion of production etc.); the knowledge-generating function of the entrepreneurial process extends to the latter insofar as both capital suppliers and entrepreneurs get to know only *ex post* about the adaptability of their decisions. Thus, the processes on both markets are fundamentally intertwined.

What can we learn from this scenario? First, the introduction of an innovation as such is now subject to an additional selection criterion, which is the acquisition of financial resources, or financial capital. This point can be generalized to the buildup of other classes of capital, where a crucial point is the transformability (or "fungibility", Coleman 1990) of different classes of capital given concrete conditions as well as the structural and institutional framework. For example, the ease and extent to which the entrepreneur will be able to "transform" financial capital into human capital by recruiting on the labour market will depend on concrete scarcity conditions on that market as well as institutional circumstances that e.g. constrain the range of contract conditions that the entrepreneur can offer. As another example, the empirical literature on entrepreneurship and start-up creation has clearly shown the importance

⁵ Given the structural symmetry between consumers/demanders on the goods market and suppliers on the capital market, there appears to be a certain dissimilarity insofar as here, it is also the selecting party that faces a situation of fundamental uncertainty. However, one can argue that this difference is gradual at best since consumers are often not aware *ex ante* which effect a product will have on their well-being (Mantzavinos 2001), rendering the learning and knowledge generation process a two-sided phenomenon. The same is of course true for the simple political market process outlined above, where voters can learn about the quality and trustworthyness of politicians over time.

of individual endowment with social capital for opening up channels of financial capital as well as to potential customers (see e.g. Anderson / Miller 2003, Burt 1992).

Second, the viability of innovation over time is now a function of a sufficient flow of resources that can be generated *both* on the goods and the capital market. We can distinguish two simple cases here: if the entrepreneur, having externally acquired some initial startup resources, is able to sustain his innovation from the stream of profits, we are back in the basic scenario outlined above. If additional external funds are necessary, the primary selective force will again shift back to the capital market. More generally, the use of profit as a retention signal is not a cogent, "objective" implication of a correspondent stream of resources, but the result of deliberate decisions on behalf of the entrepreneur *and* the financier; put simply, a lossgenerating innovation is always viable as long as somebody is able and willing to finance it.

The next step then is to view individual decision-making itself as a process of "internal" variation, selection, and retention. In the simple original scenario, we implicitly assumed that the entrepreneur disposes of the necessary resources to establish the innovation on the product market on his own. The "primary" selection of the innovation would then take place in the entrepreneur's mind; certain ideas and actions are deliberated but only few will be realized, the selection criterion being motivations, expectations and interpretations that are themselves the result of cognitive schemata and emotional predispositions as well as certain institutions that filter the range of actions considered.⁶ In the enriched scenario, the same is of course true for the financier; being possibly confronted with many project proposals, he will ultimately have to draw a selection based on individual judgement, which can be highly idiosyncratic but may be strongly restrained by external standards / institutions such as certain minimum thresholds for the borrower's attributes. Correspondingly, as we already implied, the financier's motivation can be driven by the standard expectation of future profits or some other element such as the pursuit of altruistic aims.

Given that the financier selects from other individuals' proposals that are transmitted by communication, two additional points arise. First, as we already outlined in the basic scenario, internal selection criteria as well as the perception and interpretation of facts are not given but themselves subject to influence and manipulation by the borrower/entrepreneur, a point that already appeared in the basic scenario with regard to consumers and voters. Second, given a combination of

⁶ These differentiations are of course strongly simplified and would need elaboration in future work, relating to recent research results in evolutionary psychology and the cognitive sciences. Our use of the notion of "cognitive schemata" follows Herrmann-Pillath (2004) and can be seen as a generalized version of Denzau and North's (1994) "mental models". Expectations, whose central role for entrepreneurial judgement is stressed in the literature, are seen as essentially deriving from these schemata; a similar view holds for interests. Emotional predispositions are an indispensable part of every evolutionarily founded model of human behavior, see e.g. Herrmann-Pillath (2002, p. 117 ff); we conjecture that they play a particularly important role in the political realm.

informational abundance and a scarcity of time to deal with it, the creditor will have to develop a particular class of internal selection criteria that allow him to "shortcut" on certain proposals, that is, to eliminate them from further consideration in a very limited amount of time. Why we cannot be specific on the psychological detail here, the "economics of attention" (Franck 1998) is a fundamental part of individual decision making on modern markets and therefore has to be an integral part of market process analysis.

Correspondingly, we can enrich our picture of consumer choice. Purchasing decisions can in principle be analyzed analogously to the entrepreneurs' and financiers' choice: there will be some relatively stable selection criteria limiting the range of choices, and communication flowing from the seller/entrepreneur to consumers will normally play a non-negligible role. Two major elements are important for our perspective: first, the entrepreneurs will exert influence on consumers' perceptions (as well as emotional connotations) of certain goods; second, a key element of the successful marketization of a good will again be to successfully attain consumers' attention – which, at least in principle, directly integrates the empirically paramount role of advertising and the media into our picture.

Ultimately, thus, we arrive at a fundamentally subjectivist view of the market process. Attributes of products and entrepreneurial projects as well as prices and profits are first subject to individual perception and interpretation. Based on this, individual decisions are drawn on the basis of an internal variation and selection process. Decisions, in turn, determine the stream of resources and thus the viability of an innovation.

The enriched analogy

We now again turn to a comparative view of the political realm.⁷ Before we can investigate possible structural analogies on the process level, we have to clarify the definitional issue that was raised above. In line with the standard Schumpeterian argument we have defined the *implementation* of a political innnovation as a formal collective decision to adopt it.⁸ But since the process leading to this stage is very complex, as the literature on political entrepreneurship clearly shows (see above), it appears useful to define an intermediate stage of the process which we will call the *introduction* of an innovation. Here, we directly relate to the subjectivist perspective

⁷ While specifically focussing on political entrepreneurship, the following account draws heavily on the cognitive-evolutionary approach to the analysis of economic policy, which was developed, among others, by Meier/Slembeck (1998) and Herrmann-Pillath (2004, ch. 2).

⁸ Following Roberts/King (1991), implementation could also be defined as an criterion of entrepreneurial success. As we will see, however, the "success" criterion from the political stakeholders' perspective is not necessarily congruent with the concrete enactment of an institutional innovation and is therefore somewhat ambiguous; it will not be used in the ensuing discussion. More generally, however, we do follow Roberts and King's approach insofar as we combine a results-oriented perspective of political entrepreneurship (overcoming the selection barriers for a decision on institutional change) with a process-oriented perspective that explicitly accounts for entrepreneurial activity in the "pre-stages" of an institutional innovation.

developed above and call an innovation "introduced" when it has entered consumers' or political decision makers' subjective choice sets, turning the factor of attention into a central element of the analysis. In the political realm, this definition directly corresponds to Kingdon's (1984) classical analysis of the policy process: he calls an innovation "introduced" when it has entered the policy *agenda*, that is, when it is part of a "list of subjects or problems to which government officials, and people outside of government closely associated with those officials, are paying some serious attention at any given time" (Kingdon 1984, p. 3). The basic structural similarity to the economic process is then given by the fact that in both cases, the introduced innovation is submitted to individual or collective decisions which the entrepreneur can influence but never fully anticipate.

Before we investigate the process of investment in the political realm in more detail, we return to the previously outlined difference between the implementation of an economic and a political/institutional innovation: the latter requires a collective decision of a minority of political decision makers.⁹ Therefore, the attainment of decision makers' attention will be a crucial precondition for the implementation of institutional change. Since institutional change implies the possibility to gain economic transfers,¹⁰ there will tend to be an abundance of ideas and proposals competing for decision makers' scarce resources in terms of time and information processing capacity. The mobilization of "political capital" (that is, different classes of capital that are transformable into political influence¹¹) can then partly be interpreted as an effort to overcome this cognitive selection barrier on behalf of political decision makers.

⁹ Of course, one could argue that this is only a difference in degree insofar as in certain market structures, such as a monopsony or an oligopsony (be it on the credit or the goods market), economic entrepreneurs will also face a comparably small number of decision makers. However, while the role of minority decision making as a selective device is a *special* case in the economic realm, it is an institutional *rule* in every political system except the empirically irrelevant case of pure direct democracy. This point is not to be confused with the old sociological controversy about the decisional autonomy of political elites (be it vis-à-vis interest groups or public opinion) as an empirical problem. The political entrepreneur's subjective judgement of the degree of decision makers' autonomy (which is of course again characterised by fundamental uncertainty) will certainly be an important motivation for the direction in which he channels his resource mobilization efforts. But this does not affect the fact that *ultimately*, it is decision makers that .have to be induced to implement an innovation, and not the electorate, or some other political entity.

¹⁰ As outlined above, this is stressed by analyses of political entrepreneurship in the Austrian tradition. From an evolutionary perspective, however, an account of entrepreneurial rent-seeking would have to be more ambiguous and differentiated than presented there. For example, rent seeking can exhibit important knowledge-generating functions for political actors, a point that will be generalized further below. Furthermore, important classes of institutional changes exhibit very complex distributional effects that again can be judged only ex post and do not allow for a clear *a priori* differentiation between "productive" and "rent-seeking" behavior (see for a principal discussion of this point Herrmann-Pillath 2004, ch. 1).

¹¹ The "political influence" of an actor is denoted here as a general potential to change institutional evolution; it can rest on a wide range of factors on the ideational as well as "material" level. "Power" denotes political influence directly deriving from the formal institutional framework, such as the occupation of a veto position. These definitions are of a purely pragmatic nature and would need to be extended to a full-blown evolutionary notion of "power", which cannot be pursued here (see for attempts in this direction Hederer 2004 and Herrmann-Pillath 2004)

Turning to the process of resource mobilization, on the basic structural level there is thus a clear analogy as to the role of resource acquisition as a "primary" selection criterion for the introduction of an innovation. Just as the economic entrepreneur requires financial, and possibly human, real, and social capital for the production and marketization of his good, the political entrepreneur will need different kinds of capital to attract the attention of decision makers: he will possibly try to acquire financial capital by approaching financiers, mobilize social capital, and acquire human capital (e.g. by recruiting people for the organization of a campaign).

However, while the basic structural features are not fundamentally different, processes will tend to be more complex and multi-dimensional in the political realm. While on economic markets, the standard sequence of acquiring financial capital, investing in real and human capital, and then production and marketization can be viewed as a generic case, there is normally a wider range of paths in the political area. To some extent, of course, the acquisition of some initial financial capital will be a basic precondition here as well. But in the entire process of mobilization, financial capital will more often be a secondary phenomenon that is determined by the primary process of mobilizing support, that is, building up social and organizational capital and overcoming barriers of collective action.

More generally, the specific combinations and paths of different classes of capital that the entrepreneur will decide to invest in – as well as the total amount he will decide to invest - will themselves depend on various external factors (which are again mediated by the entrepreneur's internal cognitive schemata and emotional predispositions as the selection environments for his decisions). One basic factor is the institutional environment itself, which will influence entrepreneurial decision making in at least three ways. The first is the transformability of different classes of capital into political influence. For example, some political systems restrict the amount of financial resources that may be invested into lobbying or electoral campaigns; interest group influence - that is, the transformability of organizational capital – may be subject to various restrictions; most systems to not allow for direct payments to politicians in return for specific behavior. Second, investment patterns will be related to the way in which entry barriers in the political market are designed; for example, investment decisions will differ between a system of representation in which deputies are directly elected by local constituencies and a system that combines party elections with high entry barriers to the legislative body. A third point is the system of "checks and balances" acting as a structural restriction to institutional change; this encompasses the existence and number of "veto points" along a decisional path as well as certain decisional majority requirements.¹² An important

¹² This relates to the well-known differentiation between procedural institutions determining the "rules of the game", and "material" institutions, where the former constitute a higher-order internal selection environment to change in the latter. In principle, procedural rules are of course themselves potential targets of political entrepreneurship. The only difference to material institutions (abstracting from revolutionary and/or violent change) will normally be that the majority requirements to change are more demanding; therefore, a change in procedural institutions will not only require specific

implication of these options is that channelling resources towards electoral success is only *one* possible strategy to instigate institutional change; it will be contingent on the procedural institutional framework (e.g. the frequency and scope of elections) and will often have to be complemented by investment targeting certain veto players that are partly not subject to direct democratic scrutiny (such as a constitutional court).

Another obvious factor influencing the entrepreneur's investment decision is his initial position, especially with regard to his "closeness" to decision makers but also as concerns his social network position in general. Similar to the economic realm, where the necessity of external provision of finance will vary inversely with the entrepreneur's initial endowment, the necessity for the political entrepreneur to invest in social capital, that is, to mobilize people to participate in a social movement and, eventually, a political organization, will tend to become less pronounced with the degree to which the entrepreneur possesses direct social links to decision makers.¹³ Finally, investment will also depend on the degree to which the innovation is reconcilable with and can be integrated into "paradigms" prevailing among decision makers, that is, basic cognitive schemata encompassing beliefs about and valuations of social phenomena that underly institutions and their change as a comparatively stable framework. Similarly, the depth and scope of informal institutions shared by political decision makers will also be a possible determinant of entrepreneurial investment.¹⁴

Relating to those factors, we can distinguish two basic strategies by which political entrepreneurs will target their capital to the implementation of institutional change. The first is to build up potentials to change the distribution of influence and power, such as by the formation of a social movement that successfully rallies public support and thus exerts a threat on the decision maker to lose popularity and, ultimately, to diminish his prospects of re-election in case he does not adhere to the

¹⁴ Both paradigms and informal institutions are of course central factors to the "path dependency" of formal institutional change, which acts as a principal structural restriction to the scope of political entrepreneurship to generate discontinuous change. Our account diverges from standard expositions of path dependency (e.g. North 1990) insofar as we stress the specific cognitive restrictions of *decision makers* as against actors in the economic and political realm in general. Also, the presence of path dependency does not exclude intermittent episodes of more abrupt change, especially when we take a more disaggregated perspective on institutional change. We return to this point further below.

combinations of political investment but also a higher *amount* of investment since the number of actors to be brought in line for successful change is higher. In consequence, procedural institutions will tend to exhibit greater stability over time.

¹³ See for a pioneering account of the role of social networks in (economic) competition Burt 1992. Campbell's (2004, p.178) conjecture that the ability of political / institutional entrepreneurs to instigate revolutionary institutional change is the larger the closer they are to the "interstices" of several social networks and organizations thus appears too narrow since it is not only the horizontal structure of personal networks that matters but also their vertical one, that is, the amount of political influence or power of the individuals and groups to which links are established. The main reason Campbell gives for his hypothesis is that by being more broadly interlinked, entrepreneurs may have better access to ideas from different realms and can combine them to more viable propositions for institutional change. While this may be valid in many empirical contexts, it disregards the possibility of a confluence of extraordinary circumstances, or "conjunctures" that might then give a competitive edge to "radical" ideas coming from particularistic milieus as against broad compromises. The social network aspect of political entrepreneurship would need to be elaborated in future work.

movement's demands. Since a necessary condition for the success of such a strategy is that the decision maker *perceives* the threat, the strategy must always complement the accumulation of "objective" resources by measures to make sure that the decision maker feels subjectively compelled to react.¹⁵ Here our theory in principle integrates the important role of the media in institutional change, a point that is often underemphasised in economic as well as sociological theories of institutional change. On the motivational level, this strategy has a certain (albeit imperfect) parallel in the economic realm where, similar to the political decision maker who is concerned with the amount of power he exerts, consumers are led to feel compelled to purchase a certain good in order to raise their well-being.

The second strategy is to directly influence decision makers' cognitive schemata and emotional predispositions in various ways; this is again analogous to targeting consumers by advertisement in the economic realm.¹⁶

In reality, of course, the two strategies are closely intertwined. Creating a conceivable momentum on the level of "material" influence will often create an important potential to exert ideational influence as well, the most important link again being the attainment of attention on behalf of political decision makers. Reversely, successfully influencing cognitive schemata and emotional predispositions will potentially affect decision makers' perceptions of their motivations and interests.

Investment in Social and Organizational Capital

We now turn to a closer analysis of the most important category of political investment at least in democratic systems, which is the buildup of social and organizational capital. Given our basic analogy to the economic realm, we can first ask to what extent the establishment of a political organization can be seen as similar to the establishment of a firm. Clearly, both are socially constructed collective entities delineated by membership boundaries and a common aim (compare e.g. Aldrich 1999); the establishment of both will depend on the readiness of some external "investor" (in a broad sense) to provide resources under the condition of fundamental uncertainty on future returns; both have members they recruit from some (again broadly defined) "market"; and the viability of both will to some extent depend on a sustained flow of resources supporting them, that is, they will be subject to some kind of external selection pressure.

¹⁵ Similar to the previous exposition, this subjective component is again a "primary" criterion, which becomes evident e.g. in the case that the decision maker is deliberately or incidentally misled about the true strength of a social movement and acts correspondingly.

¹⁶ To reiterate a point already made, the structural counterpart to consumers in the economic realm are thus political decision makers, not voters. Of course, influencing voters' cognitive schemata (as well as those of potential members of a social movement or a new political organization) can be an important part of a successful strategy for institutional change; but, similarly to the role of creditors in the economic realm, this will only play an *intermediate* – albeit often crucial – role in implementing an institutional innovation.

However, there are differences that partly influence the nature of organizational behavior in the economic and the political process, respectively. The most obvious is that a political organization is not designed to earn "profit" in terms of a flow of financial resources but to generate institutional change, and, as a precondition of this, to obtain influence and power - which does not deny that there is an important class of political organizations that view institutional change as a means to obtain economic rents, which could then be seen in direct analogy to economic profits.¹⁷ As a consequence, the incentives that the political entrepreneur will have to offer to recruit members will in some way have to relate to this characteristic.

For a start, apart from a minority of professional staff that some political organizations (such as political parties) entertain, the core part of membership in a political organization will not be based on an exchange relationship of labour against wages, but on an investment of members (in terms of time and/or financial resources) against uncertain returns that can either be defined in terms of economic rent, a gain of social power, or the pursuit of more general, perhaps idealistic aims. Given this, one of the central functions of the economic/capitalist firm, that is, the distribution of risk between workers who are guaranteed a constant stream of income, and an entrepreneur/financier who earns residual profits against bearing the risk of loss, will only partly be present in a political organization: As concerns the political entrepreneur, he does bear the risk of failure and wasted investment of resources and effort;¹⁸ we can also draw a parallel between the chance to gain residual profits and the chance to attain an institutionalized position of power in case of success (although the latter effect by no means is a necessary consequence of entrepreneurial activity in the political realm). On the other hand, the members of a political organization, contrary to an economic organization, will normally not rely on the organization as a source of income (at least in democratic/capitalist systems) and it is mainly for this reason that their risk – and possibly the effort they put into organizational activity – will tend to be limited.

¹⁷ The structural analogy of power and profit is already mentioned by Schumpeter (1942). The exact structure and hierarchy of organizational targets - for example, obtain rents as a primary target, with institutional change as an instrumental aim, to which in turn power is instrumental; or attain "mere" power with the propagation of institutional change as instrumental - will often be very difficult to distinguish in empirical terms. This is true for the political entrepreneur on the individual level as well. While entrepreneurial motivation bodes high in many studies of the subject in the economic and political realm, the analysis pursued here primarily investigates the entrepreneur as a source of endogenous change on a systemic level and therefore does not stress the motivational part. It can be conjectured that there is a strong commonality between the political and the economic realm insofar as the strive for power and improvement of one's relative position will play a key role. The motives famously outlined by Schumpeter for the economic entrepreneur (Schumpeter 1934, p. 92 ff) thus would appear to be at least as relevant in the political realm.

¹⁸ Schumpeter's distinction between the risk-taking and the entrepreneurial function would therefore not carry over to the political realm. This is because in a world of fundamental uncertainty, investment in a wide sense, including the use of politically important personalized resources such as social reputation or emotional effort, cannot usefully be separated from risk given that an external provision of these resources is not possible. This does not preclude the existence of different risk-sharing patterns between entrepreneurs and financiers/supporters.

A more severe concern in terms of incentive provision is the well-known problem of collective action that was influentally brought to the fore by Olson (1965). Basically, since (beneficial) institutional change is a collective good from which by definition people within a certain constituency cannot be excluded, the incentive to invest into a group or organization that provides for this change will be absent. Olson's solution is the provision of "selective incentives" that effectively transform at least parts of the benefits of group membership into a private good. However, as e.g. Kuhnert (2001) shows, this exposition is not satisfactory from an evolutionary point of view. In particular, it disregards the problem of fundamental uncertainty that the political entrepreneur faces in judging, and eventually discovering, opportunities for institutional change, and in recognizing preferences of prospective supporters, which are subject to interpretation, selective acceptance, and eventually, influence by the political entrepreneur; neither supporters' cognitive schemata nor their emotional predispositions (which are not an issue at all in Olson's exposition) can thus be deemed constant.¹⁹ As a result, political entrepreneurship is a crucial endogenous factor in determining the degree to which interests become organized, where at the same time these interests are themselves not given, but subject to a knowledgegenerating process.

In sum, the problem of political organization is considerably more complex than overcoming the collective action problem by way of selective incentives provision – which is confirmed by many strands of the sociological literature, e.g. on social movements (e.g. Davis et al. 2005). In particular, the change and eventual alignment of prospective members' cognitive schemata by way of communication and persuasion (Witt 1998, 1999) will be instrumental in mitigating inherent intraorganizational conflicts of interest, making the political organization more effective in pursuing its aims, and in retaining its existence and influence.

The implementation stage of institutional innovation

Having discussed some important elements of the *introduction* of a political innovation in the sense defined above, we now turn to its *implementation*. We have already noted that there are two basic channels by which political entrepreneurs can influence decision makers' behavior: either by altering their perception of the consequences of their decisions for their relative influence and power, or by directly

¹⁹ This puts the notion of political entrepreneurship close to definitions of leadership, a point that is explicitly acknowledged e.g. in Doug/Hargrove (1987) and taken up critically, among others, by Miroff (2003). Miroff's contention is that leadership is a preferable notion from a normative/democratic point of view since leaders necessarily have followers while the function of entrepreneurship is the mere carrying through of (supposedly egoistical) aims. While we are not concerned with normative valuations at this point, we can follow Miroff's argument insofar as political entrepreneurship, analogously to the economic realm, is primarily defined via its role in introduction and implementing institutional innovation. Insofar as this process requires a communication process between a "leader" and a collectivity of "followers", the concepts overlap; but as outlined above, one viable channel of political entrepreneurship is to exert *direct*, and possibly entirely private, influence on political decision makers, which would not make them "leaders" in Miroff's sense.

impacting on their cognitive schemata and emotional predispositions. However, both possibilities as such do not answer the question how decisions for institutional change are *concretely* achieved and what role political entrepreneurs can potentially play there. For reasons of simplicity, we start with the presumption that, despite continuous underlying changes in relative power positions (and possibly also cognitive schemata), institutional change in many cases exhibits a tendency to appear discontinuously and sometimes in surprise even to decision makers. More concretely, institutional development is characterised by the intermittent opening of "windows of opportunities" for political entrepreneurs or groups to instigate change.²⁰ To give a clearer account of this, Kingdon's (1984) model, which is closely related to an evolutionary, process-oriented approach of legislative change, can again be used. Kingdon distinguishes three "streams" of which the policy process is essentially composed: a stream of problems subject to a selection process as to the attention of decision makers, which in turn is guided by internal as well as external criteria (such as the worsening performance of some policy indicator); a stream of *policies*, that is, collections of alternatives, proposals, or solutions; and the stream of *politics* which essentially describes the evolution of relative power positions given changes in external circumstances, such as a change of government after an election. The basic argument is that a "coupling" of all three streams at a certain point in time (that is, a problem can be coupled to a proposal or solution in a receptive political climate) will dramatically enhance the chances that a subject will become fixed on a decision agenda, i.e. that it will move into position for an authoritative decision. According to Kingdon, the function of the political entrepreneur essentially is to move his "pet subject" higher on the agenda, preparing the way for this by various communicative activities ("softening up the system"), and to be present and ready when a coupling actually occurs. This account complements our analysis insofar as it enriches the picture of entrepreneurial activity by an operational element that stresses the capability to exploit scarce opportunities.²¹ At the same time, of course, entrepreneurs

²⁰ See for a seminal contribution Steinmo/Thelen/Longstreth 1992. Not all sociological accounts of institutional change acknowledge the centrality of conjunctures and discontinuous change: For example, the underlying argument of the case studies collected in Streeck/Thelen 2005 is that institutional evolution, and even radical change, is more characterised by "drift" and continuous change rather than sharp interruptions. We do not want to take any strong position here in empirical terms but only note that when taking a disaggregated perspective on certain groups of institutions, which is probably more relevant with regard to potential effects of entrepreneurial acts, it appears quite plausible that long-term stability interrupted by short phases of change will be a good approximation to reality. We return to the problem of continuity in institutional change further below.

²¹ In stressing the exploitation of *existing* opportunities, this notion is close to the Kirznerian concept of entrepreneurship (see above). Insofar as the implementation stage is only part of the complete entrepreneural process, the Schumpeterian and Kirznerian concepts of entrepreneurship can in fact be seen as complementary in the political realm. However, an analogy to the argument given in Kirzner 1999 (factual obsolence of an old technology given that a new one has been introduced; see above) would be misleading since the institutional process as implicitly depicted here is in principle indeterminate and strongly molded by internal selection criteria critically shaped by political decision makers and the "rules of the game". Therefore, there is never any abstract "necessity" to implement a proposal for institutional change once it appears somewhere in the political process, as Kirzner seems to imply for the economic / technological realm.

influence the occurrence of these opportunities themselves by being able to actively shape all streams, but without being fully able to control them.

Once a prospective innovation has been placed on the decision agenda, its enactment will normally be preceded by some kind of negotiation or discussion process, which will be shaped by the institutional "constellations" in which decision makers act (Mayntz/Scharpf 1995) as well as their internal characteristics.²² As Kingdon (1984, 208) remarks, it is plausible to assume that consensus at this stage will primarily be reached by bargaining (on the basis of given cognitive schemata and preferences) rather than by persuasion. Frequently, however, bargaining positions as well as cognitive schemata will already have undergone a process of alignment and clarification when the subject is put on the agenda, rendering the act of discussion and decision a more formal than substantial part of the policy process. On the other hand, negotiations before and after agenda-setting - and the political communication process in general – always have the potential to *modify* ideas and proposals, possibly leading to a result that none of the participants had initially intended (Herrmann-Pillath 2004, p. 154 ff). Consequently, the implementation of an institutional innovation introduced by a political entrepreneur will rarely constitute a take-it-orleave-it alternative but a continuous process of modification and adaptation.

Given that a proposal for institutional innovation has been implemented – that is, selected by decision makers – what is the retention mechanism? We already indicated in our basic scenario that the structural features of most political systems tend to foster institutional inertia in general; in particular, they provide safeguards against the reversal of institutional reforms, one simple case being the guarantee of a political quasi-monopoly for a majoritarian party or coalition during an electoral period. Thus, similarly to the economic case, the establishment of a temporary monopoly will be more resource-intensive (and risky) than its maintenance; at the same time, weaker forms of selection pressures continue to be in place (e.g. consumers turning to a substitute that is not covered by the patent; political forces joining against the prevailing coalition – e.g. by winning over party "dissidents" – to reverse a reform) and continue to require resources for retention. Consequently, the political entrepreneur will often have to secure continued political influence, or even institutionalized power, in order to block attempts of reform reversal.

The entrepreneurial process: review and summary

To round off our discussion of entrepreneurship in the process of introducing and implementing institutional innovations, we now return to the analogy and differences between the economic and political process, with the aim of summarizing and further clarifying key concepts. To reiterate, the basic precondition of introducing an

²² Apart from the factors already mentioned (cognitive schemata and paradigms, emotional predispositions, informal institutions), an important point here is the frequent ambiguity of decision makers' motivation, e.g. with regard to possible tradeoffs in investing into different classes of political capital. See for a process-oriented example López (2002).

innovation both in the economic and the political realm is the acquisition of resources. The most important part of the acquisition process will take place on markets or quasi-markets for financial and human/social capital. In both cases, entrepreneurs enter their ideas as a variation into a population of competing projects; those ideas then undergo a selection process on behalf of capital suppliers. Entrepreneurs face fundamental uncertainty as to cognitive schemata and preferences of suppliers, but can at the same time influence them by various means of communication.²³ Over time, a discovery process will take place in which entrepreneurs learn to adress the right constituencies, influence them effectively, and sometimes to adapt and enrich their ideas. On the market for financial resources, this will mostly imply to convince the potential financier of the project's potential to generate profits in the economic realm; in the political realm, there will a more complex motivational mix of acquiring economic rents as well as pursuing more idealistic aims. On the market for human and social resources, the selection performed by prospective workers in the economic realm will entail their perception of the enterprise's ability to generate a sustainable stream of resources, and their alternatives in terms of qualificational match and wage levels; the process will normally involve relatively little persuasive influence on behalf of the entrepreneur.²⁴ In the political realm, selection by possible supporters and movement or organization members will again be based on a more complex mixture of "material" and "idealistic" incentives, where the latter will be a crucial element due to fundamental uncertainty as to the prospect of acquiring economic rents and the character of institutional change as a non-excludable public good. Consequently, the political entrepreneur's ideational influence will be a decisive factor.

The next step is the *introduction* of the innovation as a variation on the "goods" market (understood in a wide sense) in the economic realm, and on a quasi-market for

²³ We can generalize this perspective further by observing that it is never clear *a priori* which side of the market will act as the primary selective force: on the capital market regarded here, there might be an relative abundance of capital suppliers competing for relatively few entrepreneurial projects, which might then also reverse the direction of persuasive efforts. This situation is not uncommon in the economic realm but may also appear in politics, e.g. in a situation of interjurisdictional competition between municipalities where "demand" for creative political projects (e.g. on behalf of voters or business interest groups) may outstrip the "supply" of entrepreneurial talent and risk propensity that is allocated to the political realm (Schneider/Teske 1995). The concrete structure of the evolutionary market process will therefore be strongly influenced by *relative scarcities*, where processes of variation and selection in principle always take place on *both* sides of the (quasi-)market.

²⁴ Again, strictly speaking we are focussing on a special case here, implying an assumption on relative scarcities. In many labour market contexts, the selective force will be exerted almost completely by the entrepreneur. Conversely, in case the entrepreneur depends on recruiting from a narrow pool of specialists, for example, persuasive elements may play an important role. This is even more true for raising the motivational levels of employees *within* an economic organization given their options to leave and eventually establish a rival organisation. A partly alignment of motivations and interests, possibly backed by a harmonization of emotional predispositions, is also frequently used as an effective way to reduce costs stemming from diverging intra-organizational interests and Williamson-style "opportunistic" behavior (Witt 1999). This is true for both economic and political organizations.

ideas and proposals for institutional change in the political realm.²⁵ Assuming the presence of an abundance of variation, the first selection barrier that the innovation has to overcome is to win the attention of consumers and political decision makers, respectively. In both cases, this will require the entrepreneur to convince the prospective purchasers / adopters of his innovation that it is in their interest to take the innovation into account when drawing their decisions in a typical framework of fundamental uncertainty. In the economic realm, various measures of marketing and advertising are aimed at influencing consumers' perception of the consequences of a purchasing decision for their subjective well-being; in the political realm, investment in financial and – in particular – social capital will serve the same aim as related to the interest of political decision makers (predominantly regarding their relative power positions, including prospects for re-election), with the molding of collective action and the attainment of media attention being two important strategies in this respect. A special strategy that the political entrepreneur can follow is the direct pursuit of a power position by way of democratic election. In that case, competition for attention would shift from political decision makers to voters, with the election being the primary – if not ultimate – selection criterion for the implementation of institutional change.²⁶

²⁵ This perspective implies a possible reversal of the economic supply and demand-framework as applied to politics in the standard approach: there, politicians are normally viewed as "suppliers" of institutions and institutional reform whereas interest groups and/or voters constitute the "demand" side. Here, political decision makers are on the demand side of ideas for institutional reform, with the analogue to consumers' utility maximization presumably being their strive to keep and extend their power. However, a clear distinction of the approaches is often difficult, e.g. in the case when a politician takes up different ideas propagated by different political entrepreneurs (possibly including himself in an entrepreneurial role) and "offers" their implementation to interest groups in exchange for some (financial, reputational etc.) reward. The general underlying problem here is that due to the character of many institutions as a public good, the complexity of their distributional effects, and the non-negligible presence of idealistic motivations, contrary to the economic realm it is often difficult to define a market-based "exchange relationship" that entails a clearly defined mutual flow of resources. However, we can again usefully apply the concept of relative scarcity here: In the scenario given in the text, it is clearly the political decision maker who selects from an abundance of proposals for institutional change; the capacity to transform those proposals into actual reform is institutionally "scarce" and subject to competition. On the other hand, the politician himself competes for scarce resources in terms of power and legitimacy that in turn will partly depend on his decisions about which reform to propagate and enact.

²⁶ It is important to note that by restricting ourselves to the analysis of Schumpeter's case (i) of innovative activity, the introduction of a new good, we have implicitly left out other "indirect", or instrumental, strategies to implement institutional innovation, the most important being entrepreneurial activity *within* a *given* political organization ("intrapreneurship", which can be formulated as a subcase of Schumpeter's case ii). The primary targets of entrepreneurial activity would then be other members of the respective organization. While many structural components of the respective process would remain equal (such as the necessity to overcome attentional barriers, the alignment of cognitive schemata and emotional predispositions, and the organization of collective action), additional problems arise with respect to possible intra-organizational conflict, e.g. between hierarchical leaders and entrepreneurs. The "external" selection pressure exerted on the organization as a whole would then have to be complemented by an "internal" selection process determining the ideas and proposals that the organization propagates. The problem is equivalent for firms in the economic realm and needs to be investigated in future work.

Implementation of an innovation is equivalent to the stabilization of the innovation on the goods market in the economic realm, and an adoption by decision of institutionally authorized individuals and maintenance of this decision over some time in the political realm. Whereas implementation in the economic realm will normally be the result of a decentralized and uncoordinated decision process of a collection of individuals that is not pre-defined from the entrepreneur's perspective, the political realm requires the collective decision of a clearly delineated minority, which will make tend to make the selection process more unpredictable because proposals will often be altered in the process of negotiations, without the entrepreneur being able to control these modifications. In principle, entrepreneurs have the opportunity to modify and develop their initial ideas in response to external reactions in both the economic and political realm. However, given that initial investments cannot be reversed completely, the scope of change is limited: for example, the new good can only be modified within a given range of technological possibilities; the political entrepreneur has to harmonize an amendment with the initial idea at least to some extent, facing possible losses in terms of reputation and credibility if he acts otherwise.²⁷

We now turn to the problem of retention, and the associated knowledgegenerating processes. For both realms, we stressed that retention is ultimately based on individual decisions, and therefore on subjective perceptions and decisions that mediate the significance of "objective" criteria signalling evolutionary fitness. In the economic realm, the continuous stream of profits as a fitness criterion will normally be key since the the average - albeit not necessarily each and every - financier's focus will be financial yield. In the political realm, however, the subjective element will tend to be more important since, absent a direct connection between entrepreneurial behavior and resource flows, there are at least three conceivable criteria that supporters can use as an indicator of entrepreneurial success: 1) the amount of political influence the entrepreneur and the respective movement or organization obtains, generating potential to impact on political decision makers' behavior; 2) the enactment of institutional change as such; 3) the derivation of economic rents from this enactment. Which of these possibilities prevails will very much be a function of concrete contexts. Finally, we can distinguish between different degrees to which the entrepreneur can retain an innovation without having to rely on external resources. In the economic realm, the obvious cases are a sufficient initial endowment or the ability to generate a sufficient flow of resources from profits. In the political realm, apart from the unrealistic case of "pure" dictatorship, the successful retention of an institutional innovation will *always* depend on a certain amount of cooperative behavior. However, the degree to which the political entrepreneur will have to rely on the mobilization of social/organizational capital will strongly depend on his own endowment. Also, in loose analogy to the economic realm, the political

²⁷ The internal stabilizing dynamics of cognitive models and political programs is stressed by Herrmann-Pillath (2004, p. 178).

entrepreneur can gain at least a certain degree of independence from his "financiers" / supporters by attaining an institutionalized power position, that is, becoming a political decision maker himself.²⁸

In what respect are economic and political processes knowledge-generating? As we repeatedly stressed, entrepreneurial decisions as well as the decisions in their selective environments are subject to fundamental uncertainty and the inability to fully preview the consequences of certain behavior. In the economic realm, prices and profits will serve as the primary signal based on which entrepreneurs and financiers can adapt their decisions over time. In the political realm, signals are more ambiguous, but in principle the following processes can be distinguished: first, political entrepreneurs will learn about the preferences of their supporters as well as about ways and methods to implement institutional change, where they can possibly imitate other preceding political entrepreneurs (Campbell 1999). Second, supporters will learn about the effectiveness of different (and potentially competing) political entrepreneurs in achieving their aims, and possibly adapt their behavior. Third, politicians will learn about the preferences of their constituents given a varying degree of organization of interests that is in part determined by entrepreneurs. This is the standard argument for the knowledge-generating role of lobbying in the policy process (e.g. Herrmann-Pillath 2004).

3. The role of political entrepreneurship in institutional change

Based on the evolutionary conception of political entrepreneurship we have developed, we now derive some consequences with regard to the role of political entrepreneurship for institutional change. In the literature, the assessment of this role has been quite contested, ranging from depictions as essential to institutional innovation processes on different levels (e.g. Schneider/Mintrom 1995, Sheingate 2003) to more sceptical views given the multitude of veto points in modern democratic systems and the persistence of informal political institutions (e.g. Schneilenbach 2007).

On a fundamental level, the discussion of political entrepreneurship is part of a general theoretical strive to understand the duality of "structure" and "agency" in social evolution. As some authors note (e.g. Fligstein 2001, Beckert 1999), a differentiated account of agency has in tendency been neglected in the (sociological, but also economic) literature on institutions concurrent with that literature's emphasis on the existence and stability of institutions from a static point of view. Taking a dynamic perspective, however, it is clear that an explanation purely based on structural factors and relying on exogenous triggers of change will not give a

²⁸ For example, a frequent problem for political parties is that they help certain of their members to get into power positions without being able to enforce compliance with party politics afterwards (e.g. presidency, constitutional court). A full account of this problem would require an analysis of political intrapreneurship and principal-agent-problems within political organizations.

satisfactory account of many empirical patterns. The theoretical role of agency can then essentially be defined as an *endogenous* driver of change – given that agents not only passively adapt to given external restrictions (the approach favored by neoclassical and rational-choice-based accounts of institutions) and/or follow institutionally molded and taken-for-granted scripts and habits (the approach favored by modern organizational and sociological institutionalism, but also by parts of the "old" institutionalism in economics), but have the ability to act creatively and to shift institutional constraints in order to pursue their (broadly defined) interests (which would be stressed by an evolutionary, entrepreneurship-centered perspective). At the same time, given fundamental uncertainty, even the process of institutional adaptation to *exogenously* changing circumstances will entail a certain amount of "creative" behavior in the sense that its patterns cannot be completely predicted *ex ante*.

In sum, structural features of a system of institutions always constitute a *necessary* but not a *sufficient* condition for the occurrence, timing, and direction of institutional change. Thus, an element of chance and unpredictability is introduced into institutional analysis that may be one reason why agency and entrepreneurship are still comparatively underinvestigated factors in institutional theory; at the same time, it is a basic cornerstone of an evolutionary analysis of institutional change. However, the scope of the "chance" element can be significantly reduced if individually internal (but often socially molded) factors, such as cognitive schemata and emotional predispositions, restricting individual behavior are integrally included into the analysis.

The key question with regard to the role of political entrepreneurship in institutional change, then, is not whether purely "structural" explanations of change are sufficient but to what extent institutional innovation can be causally traced back to the actions of entrepreneurial individuals – be it as propagators of change starting from positions external to the policy system (the thrust of analysis in this paper), as intrapreneurs in a given political organisation, or as political decision makers.²⁹ We cannot give an account of the extensive empirical literature on this point but offer some points based on the evolutionary perspective.

Starting again on a very general level, it appears clear that the impact of political entrepreneurship will depend on structural constraints of the institutional framework, such as elements of direct democracy, the voting system, or constitutional checks and balances. Clearly, these constraints vary in space and time; it can be conjectured that the weaker the formal institutional framework, the larger the leeway for, and

²⁹ As mentioned above, the functional perspective taken by the late Schumpeter (e.g. 1949) would imply that groups or organizations, viewed as social entities, are also regarded as entrepreneurs given they fulfil the requirement of innovative behavior. Our position is that, while an analysis of groups and organizations as autonomous social entities is valid from an evolutionary point of view (esp. when taking a systemic perspective on evolution, see e.g. Corning 2005, Herrmann-Pillath 2002, Hodgson 2002), a full account of entrepreneurship as an agency phenomenon cannot stop at the level of this entity but has to enter intraorganizational (or intragroup) processes down to the level of individual behavior. The association of entrepreneurship with individual behavior would therefore be kept up without denying the importance of organizational restraints.

significance of, individual entrepreneurial activity. For example, it has been shown that in situations of political crises (such as recently experienced by Eastern European transformation economies and several Latin American countries) the analysis of elite behavior becomes central to further institutional development (see e.g. Dogan/Higley 1998) because the thrust of selection criteria for institutional innovation tends to move from formal institutions and structural conditions to informal institutions and more personal / idiosyncratic conditions. Another factor fostering political entrepreneurial activity may be pressure from interjurisdictional competition, as e.g. studied by Schneider/Teske (1995). Importantly, Schneider and Teske's study also stresses that political entrepreneurship is not only a "demand" but also a "supply" phenomenon, since entrepreneurial talent and the willingness to take risks are scarce resources in themselves. This degree of relative scarcity will then be dependent on additional structural features of a political-economic system that have been relatively neglected in the literature on political entrepreneurship, such as the relative rewards of entrepreneurial success in the political as against the economic realm³⁰ or the existence of an "entrepreneurial culture" in the political realm (e.g. the readiness to engage in, or to finance, grassroots movements).³¹

More specifically, we can look at the role of political entrepreneurship in democratic systems characterised by a comparably high number of "veto points" dispersed across the political system and a presumable relative inertia of informal political institutions. In an important critique, Schnellenbach (2007) largely denies any important role for political entrepreneurship in such a context and as an alternative develops the concept of a "public arbitrageur", who opportunistically specializes in the exploitation of constellations allowing for piecemeal change, given strong restrictions on the level of informal political institutions. Clearly, Schnellenbach's conclusion strongly hinges on his definition of a public entrepreneur, which is restricted to individuals promoting *non-incremental* change, whereas the analysis presented here associates political entrepreneurship with the propagation of institutional innovation without differentiating its scope. Given the relative rarity of revolutionary change, then, the role of political entrepreneurship in the Schumpeterian sense³² is largely dismissed both from an emprical and normative point of view.

³⁰ Rewards would include material, reputational, and other gains here. In many systems, economic and political rewards are at least partly in a complementary, not substitutive relationship, e.g. in systems where financial capital is easily transformable into political capital.

³¹ The problem of interjurisdictional competition also points to the question in which *direction* entrepreneurial activity will be channelled as a consequence of systemic incentives. Given strong competitive pressure on a comparatively small system (municipality), Schneider and Teske's implicit assumption that the adaptedness and viability of entrepreurial behavior is equivalent to benevolence in terms of economic well-being might be justified, but this constellation is of course by no means universal, as e.g. Baumol (1990) shows.

³² As an aside, *both* the definitions provided by Schnellenbach and in this paper lay claim to relate to a "Schumpeterian" tradition with some justification, depending on which phase of Schumpeterian thinking about entrepreneurship is taken as a reference. Schnellenbach (p. 184 f) primarily relates to Schumpeter's (1942) discussion of democratic leadership, and the restriction to non-incremental change would also find some justification in the definition in Schumpeter (1934) mentioned earlier. However,

However, this view appears problematic in two main aspects. First, while the frequency of its occurrence might be low, the existence and importance of institutional conjunctures allowing for changes in policy paths has been repeatedly stressed in both the theoretical and empirical literature,³³ especially with regard to its potential to decisively shape the direction of incremental institutional evolution for long periods of time. Relating to the structural argument presented above, then, it is exactly in these periods that agency in general, and political entrepreneurship in particular, become overproportionately important factors of institutional evolution. Second, Schnellenbach's analysis implicitly takes a result-oriented view of political entrepreneurship insofar as entrepreneurial success seems to be associated with a successful implementation of non-incremental change as a direct consequence of entrepreneurial behavior; since this is an empirically rare phenomenon, Schumpeterian entrepreneurship is deemed as insignificant for the daily routine of democratic politics. However, as our analysis shows, the role of political entrepreneurs – even if we follow Schnellenbach in restricting them to propagators of non-incremental change – can still be important as key actors generating *pressure* for institutional change, be it by raising consciousness for particular problems or by building up political capital that forces decision makers to react. In most constellations in democratic systems, a modification of the entrepreneur's ideas and proposals in the process of negotiation and compromise-building will be unavoidable, but that does not imply that his key theoretical role as an endogenous propagator of change can be dismissed. As Sheingate (2003, p. 200 f) notes, what looks like stability or institutional "equilibrium" may in fact mask a steady probing for innovation, in which entrepreneurs usually *fail* to consolidate their innovation into durable institutional change, or meet with only partial success.³⁴

Summing up, in an evolutionary perspective of path-dependent, incremental change, political entrepreneurs constantly generate variation and therefore fulfill a crucial function in keeping the system viable; the "success" of these variations in the institutional selection process is a matter of specific systemic and historical circumstances but is not directly related to the importance of entrepreneurship as such.

in later work (e.g. Schumpeter 1947) the economic function of entrepreneurship to introduce novelty of *any* kind is clearly stressed, explicitly including "unspectacular" realms of activity ("It need not be Bessemer steel or the explosion motor – it can be the Deerfoot sausage", Schumpeter 1947, p. 151).

³³ See e.g. Steinmo et al. 1992, Pierson 2000, Campbell 2004. One empirical example among many is Hederer (2007), who provides a comparative study of agency and non-incremental change in health care systems.

³⁴ Entrepreneurial failure will often be the consequence of counter-mobilization efforts which, although structurally similar to the political "investment process" outlined in part 2, are not subsumed under the concept of political entrepreneurship due to their conservative character. This points to a certain weakness of the entrepreneurship concept insofar as it entails an implicit normative stance on the desirability of institutional *change* and innovation as opposed to preservation; from an evolutionary perspective, however, there is no *a priori* reason for assuming that change as such will always lead to adaptive/viable results. This point would need further elaboration in a more complete framework that fully analyses the relation of internal and external selection forces in institutional evolution on different levels.

Conclusion

This paper has developed an evolutionary perspective on political entrepreneurship by investigating its parallels and differences to the economic market process and the role taken by the entrepreneurial element there. Depicting different stages of the political process in terms of variation, selection and retention patterns, we concluded that the fundamental role of political entrepreneurship for institutional evolution is its endogenous propagation of change and its provision of risky investment in political capital given conditions of fundamental uncertainty. There are various avenues for an extension and further development of this research:

- Intrapreneurship in economic and political organizations: a comparative perspective based on a general evolutionary approach to organizational behavior could yield important insights, e.g. with regards to processes of implementing an innovation within a given organization.
- Economic and political leadership and the principal-agent problem: a characteristic feature of organizational behavior in both economic and political organizations in the possible divergence of interests between organizational leaders and other members in a situation of mutually incomplete control. This can have strong implications for entrepreneurial discretion as well as the direction of entrepreneurial effort. Again, a comparative perspective might yield important insights here.
- The relation of internal processes and external adaptive pressures on institutional change: the analysis largely sidestepped the question of a normative evaluation of entrepreneurial political activity. Here, the development of a systemic evolutionary perspective would be instrumental which could distinguish different patterns of "adaptation" of institutional systems as a whole, and the interaction of internal selection criteria structuring those systems with their external viability.
- Motivation and individual characteristics of entrepreneurs: this could include different strands of the extensive literature on leadership, integrating them into an evolutionary perspective. Also, the social network aspects of economic and political entrepreneurs would merit further investigation.

References

- Aldrich, Howard E.1999: Organizations Evolving, London / Thousand Oaks / New Delhi: Sage Publications.
- Aldrich, Howard, 2005: Entrepreneurship, in: Smelser, Neil J. / Swedberg, Richard, eds.: The Handbook of Economic Sociology. Princeton et al.: Princeton University Press and Russell Sage Foundation, 451-477.

- Anderson, Alistair R. / Miller, Claire J. 2003: 'Class Matters': Human and Social Capital in the Entrepreneurial Process. Journal of Socio-Economics 32, 17-36.
- Baumol, William 1990: Entrepreneurship: Productive, Unproductive, and Destructive. Journal of Political Economy 98/5, 893-921.
- Beckert, Jens 1999: Agency, Entrepreneurs, and Institutional Change. The Role of Strategic Choice and Institutionalized Practices in Organizations. Organization Studies 20, 777-799.
- Burt, Richard 1992: Structural Holes the Social Structure of Competition. Cambridge, Mass.: Harvard University Press.
- Campbell, John 2004: Institutional Change and Globalization. Princeton / Oxford: Princeton University Press.
- Campbell, Noel D. 1999: Political Entrepreneurs and the Transfer Demanding Process: Homesteading the Unassigned District. Review of Austrian Economics 12/2, 201-226.
- Casson, Mark 2003: The Entrepreneur. An Economic Theory, 2nd ed., Cheltenham / Northampton: E. Elgar.
- Coleman, James S. 1990: Foundations of Social Theory. Cambridge / Mass. / London: The Belknap Press of Harvard University Press.
- Corning, Peter A. 2005: Holistic Darwinism Synergy, Cybernetics, and the Bioeconomics of Evolution. Chicago: Chicago University Press.
- Dahl, Robert 1961: Who Governs? Democracy and Power in an American City. New Haven (Conn.): Yale University Press.
- Davis, Gerald E. / McAdam, Doug / Scott, W. Richard / Zald, Mayer N., Hrsg. 2005: Social Movements and Organization Theory, Cambridge: Cambridge University Press.
- Denzau, Arthur D. / North, Douglass C. 1994: Shared Mental Models: Ideologies and Institutions. Kyklos Vol. 47/ 1994, 3-31.
- Dogan, Mattei / Higley, John, eds. 1998: Elites, Crises, and the Origins of Regimes. Oxford et al.: Rowman & Littlefield.
- Doig, Jameson W. / Hargrove, Erwin C. 1987: "Leadership" and Political Analysis, in: Doig / Hargrove, eds.: Leadership and Innovation – a Biographical Perspective on Entrepreneurs in Government. Baltimore / London: The John Hopkins University Press, 1-25.
- Edwards, Charles / Jones, Geoff / Lawton, Alan / Llewellyn, Nick 2002: Public Entrepreneurship: Rhetoric, Reality, and Context. International Journal of Public Administration, 25/12, 1539-1554.
- Fligstein, Neil 2001: Social Skills and the Theory of Fields. Sociological Theory 19, 105-25.
- Franck, Georg 1998: Ökonomie der Aufmerksamkeit ein Entwurf (Delineation of an Economics of Attention). Munich: Hanser.
- François, Abel 2003: The Political Entrepreneur and the Coordination of the Political Process: A Market Process Perspective of the Political Market. Review of Austrian Economics 16/2-3, 153-168.
- Harper, David 1996: Entrepreneurship and the Market Process. An enquiry into the growth of knowledge. London / New York: Routledge.
- Harper, David 2003: Foundations of Entrepreneurship and Economic Development. London / New York: Routledge.

- Hayek, Friedrich A. 1945: The Use of Knowledge in Society. American Economic Review 35/4, 519-530.
- Hederer, Christian 2003: Elites in the Information Society: An Evolutionary Approach. Working Paper for the Annual Conference of the European Association for Evolutionary Political Economy, Maastricht, November 2003.
- Hederer, Christian 2007: Elites and Agency in Institutional Change: The Case of Health Care Reform. Paper presented to the First Conference on Innovation and Change in Health Care Systems, Budapest, Mai 2007.
- Herrmann-Pillath, Carsten 2002: Grundriß der Evolutionsökonomik (Foundations of Evolutionary Economics). Munich: Fink.
- Herrmann-Pillath, Carsten 2004: Kritik der Theorie des internationalen Handels, Band II: Evolutionäre Politische Ökonomie. (Critique of the Pure Theory of International Trade, Vol. II: Evolutionary Political Economy). Marburg: Metropolis.
- Herrmann-Pillath, Carsten 2004: On Power as a Unifying Concept in a Naturalistic Foundation of the Social Sciences. Paper presented at the Workshop on Evolutionary Concepts in Economics and Biology, Max-Planck-Institute for Resarch Into Economic Systems, Jena, December 2004.
- Hodgson, Geoffrey M. 2002: Darwinism in Economics: from Analogy to Ontology. In: Journal of Evolutionary Economics 12: 259-281.
- Holcombe, Randall 2002: Political Entrepreneurship and the Democratic Allocation of Economic Resources. The Review of Austrian Economics 15: 2/3, 143-159.
- Kirzner, Israel M. 1973: Competition and Entrepreneurship. Chicago: University of Chicago Press.
- Kirzner, I. 1997: Entrepreneurial Discovery and the Competitive Market Process: An Austrian Approach. Journal of Economic Literature 35: 60-85.
- Kirzner, Israel 1999: Creativity and/or Alertness: A Reconsideration of the Schumpeterian Entrepreneur. Review of Austrian Economics 11: 5-17.
- Knight, Frank H. 1921: Risk, Uncertainty and Profit. Boston / New York: Houghton Mifflin.
- Kuhnert, Stephan 2001: An Evolutionary Theory of Collective Action: Schumpeterian Entrepreneurship for the Common Good. Constitutional Political Economy 12/1, 13-29.
- Lancaster, K.J. 1966: A New Approach to Consumer Theory. Journal of Political Economy 74 (April), 132-157.
- Loasby, Brian J. 1982: The Entrepreneur in Economic Theory. Scottish Journal of Political Economy 29/3, 235-245.
- López, Edward J.: The Legislator as Political Entrepreneur: Investment in Political Capital. Review of Austrian Economics 2002 15/2-3, 211-228.
- Mantzavinos, Chrysostomos 2001: Individuals, Institutions, and Markets. Cambridge et al.: Cambridge University Press.
- Marshall, Alfred 1920: Principles of Economics. 8th ed., London: Macmillan.
- Mayntz, Renate / Scharpf, Fritz W., 1995: Der Ansatz des akteurszentrierten Institutionalismus (Actor-centered institutionalism), in: Mayntz/Scharpf, eds. 1995: Gesellschaftliche Selbstregelung und politische Steuerung (Societal self-regulation and political governance). Frankfurt/New York: Campus, p. 39-72.
- Meier, Alfred / Slembeck, Tilman 1998: Wirtschaftspolitik Kognitiv-evolutionärer Ansatz (A Cognitive-Evolutionary Approach to Economic Policy). 2nd ed., Vienna/Munich: Oldenbourg.

- Mintrom, Michael 1997: Policy Entrepreneurs and the Diffusion of Innovation. American Journal of Political Science 41/33, 738-770.
- Miroff, Bruce 2003: Entrepreneurship and Leadership. Studies in American Political Development 17: 204-211.
- North, Douglass C. 1990: Institutions, Institutional Change and Economic Performance. Cambridge: Cambridge University Press.
- Olson, Mancur 1965: The Logic of Collective Action Public Goods and the Theory of Groups. Cambridge (Mass.) et al.: Harvard University Press.
- Roberts, Nancy / King, Paula J. 1991: Policy Entrepreneurs: Their Activity Structure and Function in the Policy Process. Journal of Public Administration Research and Theory Vol. 1 No. 2, 147-175.
- Schneider, M. / Teske, P. 1992: Toward a Theory of the Political Entrepreneur: Evidence from Local Government. American Political Science Review 86: 737-747.
- Schneider, Marc / Teske, Paul (with M.Mintrom) 1995: Public Entrepreneurs: Agents for Change in American Government. Princeton: Princeton University Press.
- Schnellenbach, Jan 2007: Public Entrepreneurship and the Economics of Reform. Journal of Institutional Economics 3/2, 183-202.
- Schumpeter, Joseph A. 1928: Unternehmer (The Entrepreneur). Handwörterbuch der Staatswissenschaften, 4. Aufl., G. Fischer, Jena, VIII, 476-487.
- Schumpeter, Joseph A. 1934: The Theory of Economic Development An inquiry into profits, capital, credit, interest and the business cycle. Oxford: Oxford University Press.
- Schumpeter, Joseph A. 1942: Capitalism, Socialism and Democracy. New York: Harper & Brothers.
- Schumpeter, Joseph A. 1947: The Creative Response in Economic History. Journal of Economic History 7/2, 149-159.
- Schumpeter, Joseph A. 1949: Economic Theory and Entrepreneurial History, in: Change and the Entrepreneur. Prepared by the Research Center in Entrepreneurial History, Harvard University, Cambridge, Mass.: Harvard University Press, 63-84, reprinted in: Schumpeter, Joseph 1989: Essays on Entrepreneurs, Innovations, Business Cycles, and the Evolution of Capitalism. Ed. by Richard V. Clemence, New Brunswick / London: Transaction Publishers, 253-271.
- Sheingate, Adam D. 2003: Political Entrepreneurship, Institutional Change, and American Political Development. Studies in American Political Development 17: 185-203.
- Steinmo, Sven / Thelen, Kathleen / Longstreth, Frank 1992: Structuring Politics Historical Institutionalism in Comparative Perspective. Cambridge: Cambridge University Press.
- Streeck, Wolfgang / Thelen, Kathleen, eds. 2005: Beyond Continuity Institutional Change in Advanced Political Economies. Oxford/New York: Oxford University Press.
- Weissert, Carol S. 1991: Policy Entrepreneurs, Policy Opportunists, and Legislative Effectiveness. American Politics Quarterly 19/2, 262-274.
- Witt, Ulrich 1998: Imagination and Leadership? The Neglected Dimension of an Evolutionary Theory of the Firm. Journal of Economic Behavior and Organization 35, 161-177.
- Witt, Ulrich 1999: Do Entrepreneurs Need Firms? A Contribution to a Missing Chapter in Austrian Economics. Review of Austrian Economics 11: 99-109.
- Wohlgemuth, Michael 2000: Political Entrepreneurship and Bidding for Political Monopoly. Journal of Evolutionary Economics 10, 273-295.