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Firms as Realizations of Entrepreneurial Visions

by

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abstract

In the debate on why firms exist, the question of who chooses between firms and markets and on what basis is rarely addressed. This paper argues that the choice is a core element of the entrepreneurial pursuit of visions or conceptions of business opportunities. To successfully organize resources into the envisioned businesses – be it via firms or markets – resource owners must be coordinated on the entrepreneur's conception of the business and be motivated to perform properly. To solve the dual problem, the organizational form of the firm offers the entrepreneur unique advantages not feasible under the organizational form of markets.

I. Introduction

Production and trade can be organized via markets or via firm organizations. When and why is the organizational form of the multi-person firm preferred to ordinary market transactions? Transaction cost economics argues that the organizational form is chosen so that transaction costs, hold-up, and post-contractual hazard are minimized and scale economies can be internalized (Coase 1992, Shelanski and Klein 1995, Williamson 2002). A question rarely addressed in transaction cost economics is, however, who makes the choice and on what basis. This question draws attention to the entrepreneurial role, and, it will be claimed in this paper, adopting an entrepreneurial perspective makes a difference in explaining the choice between firms and markets. The difference is that the focus on entrepreneurial choice brings to the fore a cognitive dimension that is usually neglected in both transaction cost economics and the (Marshallian) theory of the firm more generally (Loasby 1990).

The notion of “entrepreneurship” has many different connotations (Shane and Venkataraman 2000). Following Penrose (1959, 31), it will be identified here with the constitutive service that entrepreneurship provides. This service consists of the incessant (re-) structuring of production and trade – be it via markets or via firms.¹ For entrepreneurial ventures to be undertaken, business opportunities must be imagined and conceptions for realizing them must be figured out in the first place. Visions like these are a crucial, though often overlooked, cognitive input to the entrepreneurial service of (re-) organizing production and trade (Shackle 1979, Fransman 1994, Witt 2003, Eckardt and Shane 2003, Alvarez and Barney 2005, cf. also Kirzner 1999). Entrepreneurs can try to realize their imaginings and conceptions by choosing either one of the two organizational forms. Where the multi-person firm is

¹ Entrepreneurial services differ from managerial ones. Again following Penrose (*ibid.*, 32), managerial services can be defined as being related to the execution of entrepreneurial ideas and proposals and to the supervision of existing operations. Note that the same individuals may provide both types of services at the same time, and that entrepreneurship, as defined, neither presupposes a specific occupational status nor the specific proprietary status of the residual claimant.

chosen, however, it may not only, perhaps not even, be transaction cost advantages that motivate that choice, but rather reasons that relate to the cognitive dimension.

Setting up, or taking over, a firm organization, means hiring staff whose services are not completely specified in advance by the employment contracts. There is a need, therefore, to make available in the organization those services in quantity, quality, and timing that fits the entrepreneurial business conception. This is a coordination task that involves specific forms of communication with the firm members. There are several options for carrying out this task. One of them, however, can generate benefits to the enterprise which are not feasible via market contracting. As will be argued, this is the very option that provides a motive other than transaction cost advantages for choosing the organizational form of the firm. The option is a governance regime based on “cognitive leadership” (Witt 1998, 2000). Coordination is achieved here by conveying the entrepreneurial conception of what business to do, and how to do it, to the employees and by making them adopt this as a basis for their decision making in the domain of discretion delegated to them. What kind of benefits this regime implies, and what particular features it has, requires a more detailed discussion of the cognitive underpinnings of human action and some related motivational aspects of behavior.

In order to substantiate these claims and to bring out some implications, the paper proceeds as follows. Section II introduces the notion of a “business conception” to represent the entrepreneur’s visionary cognitive input to (re-) organizing and coordinating resources. A connection is then made between the mode of coordinating firm members on a business conception and the firm members’ work motivation. The specific form of that connection in a governance regime where the entrepreneur exerts cognitive leadership is explained and its unique benefits (other than mere transaction cost advantages) are discussed. Section III elaborates in more detail on the conditions under which an entrepreneur can implement and maintain a cognitive leadership regime in the firm organization. As will turn out, this is far from being a trivial task. Some capabilities and personal characteristics of an entrepreneur which can be expected to be conducive to achieving the task are discussed. Section IV turns to the question of

stability of a cognitive leadership regime if, by its very success, the firm organization grows. To discuss this question, a developmental view of the firm is introduced. It points to a window of opportunity for reaping the unique benefits from a cognitive leadership regime which sooner or later seems to close. Other governance regimes are likely to emerge then. One of them can secure at least some of the benefits of cognitive leadership, provided the entrepreneur manages to make the transition to the new regime in time. Section V offers the concluding remarks.

II. The Cognitive Entrepreneurial Task and the Choice of the Organizational Form

The basic proposition of this paper is that an essential part of the entrepreneurial service of restructuring economic resources is the provision of a cognitive input in the form of a “business conception” (Witt 1998). A business conception consists of subjective, sometimes highly idiosyncratic imaginings in the mind of (potential) entrepreneurs of what business is to be created, and how to do it (cf. the examples in Levenhagen, Porac and Thomas 1993, Shane 2000). Like a cognitive frame, a business conception is the basis for the entrepreneur’s interpretation of incoming information with respect to its relevance and meaning for the imagined business venture. Like a cognitive frame, a business conception is largely tacit. It is not identical with a business plan, but a business plan is based on an (elaborate) business conception that is in this way partly overtly expressed.²

If the entrepreneurial business conception implies the division of labor in the organizational form of a multi-person firm, i.e. by hiring employees, then the entrepreneur faces a special, dual problem. The details of the employees’ contributions to the collective, cooperative activity are not all

² For empirical evidence for the role of subjective heuristics and beliefs in framing the strategic decisions of entrepreneurs cf. Busenitz and Barney (1997). In terms of cognitive psychology, a business conception is an elaborate “cognitive schema” or “script”, cf. Anderson (2000, Chap.5). As such it differs from the sometimes used concept of a “mental model” (e.g. in Hill and Levenhagen 1995, Casson 2000) that has been introduced in cognitive science (Johnson-Laird 1983, Chap.1) to characterize the *process* of reasoning in the human mind rather than its underlying cognitive frame.

contracted in advance. Unlike in ordinary market transactions, it is not a specific performance that is the object of the employment contract, it is rather a commitment to perform, on a reasonable level of effort, whatever turns out to be necessary when time comes. Indeed, it is the very advantage of employment contracts that they establish an open-ended contractual relationship that gives the entrepreneur more flexibility after entering into the contract to cope with unforeseen problems and opportunities. On the other hand, the room left by the employment contract requires the entrepreneur to subsequently take measures which, in the daily operations, keep the employees' activities in line with the entrepreneurial business conception.

Since organizational incoherence, frictions, and inefficiency can result both when employees are disoriented and when employees who know what is expected of them deliberately defect, two things need to be achieved simultaneously. First, the employees need to get to know which tasks they are supposed to do according to the entrepreneurial business conception. Second, they have to be motivated to make a (possibly not directly observable) effort which is adequate to achieve the task when time comes. The latter requirement is the well known agency problem. Despite its significance for the services which entrepreneurship provides, the first requirement – that of conveying to the employees which task(s) the entrepreneur's business conception assigns to them – has been given much less attention (with notable exceptions in Gioia and Chittipeddi 1991 and Gartner, Bird and Starr's 1992). That coordination and motivation are two related problems therefore often goes unnoticed. In fact, the relationship is crucial for understanding what the unique option is that entrepreneurs can try to pursue by organizing the division of labor via firms.

To explain this, consider a few aspects of human cognition that are relevant here (cf. Anderson 2000, Chaps. 3, 6, and 7). The capacity of the human cognitive apparatus, powerful as it is, is not unbounded. Its constraints result, among other things, in a selective processing and interpretation of information. Incoming information is screened for cognitive cues which trigger associations with patterns already stored in memory. Cognitive cues are themselves organized into larger and more

complex systems – cognitive frames – which guide classificatory and interpretative mental activities. Different cognitive tasks may be pursued on the basis of different cognitive frames. Conversely, under different cognitive frames, incoming information can be selected and interpreted in sometimes dramatically different ways, leading to very different actions being taken. In the light of this condition, it is important to note that, at any time, no more than just one particular cognitive frame can be in operation. For this reason, the constraints implied by selective cognitive frames for individual information processing lead to restrictions on what alternatives for action an individual can consider at a given time. Some particular courses of action may more or less clearly be conceived and carefully thought through, while others that are, in principle, feasible, or could be imagined, are not even recognized.

Against this background, the significance of an entrepreneurial business conception as a cognitive frame is obvious. Cognitive constraints prevent the entrepreneur, as much as everyone else, from imagining all possible moves that unfold into the future. There is always newly up-coming information whose implications need to be recognized and assessed within the existing interpretative framework. A business conception furnishes such a framework. If the employees could be induced to adopt the entrepreneurial business conception as their own cognitive frame for their firm-related activities, they would be better coordinated among themselves and with the entrepreneur's intentions. Furthermore, since at any point in time only one cognitive frame can be in operation, the employees' attention would be diverted from thinking up elaborate strategies, including "opportunistic" ones, that rival with the entrepreneur's business conception.

Indeed, there is a close relationship between the employees' task perception and their work motivation. Assume the employees have adopted the entrepreneurial business conception as their own cognitive frame in firm-related activities. Substantial room for discretionary or self-determined decision making can then be delegated to the employees without jeopardizing organizational coordination and coherence. This room also allows a high level of initiative, creativity, and problem solving engagement

on the part of the employees and, thus, of utilization of their dispersed embodied knowledge. In fact, room for self-determined action is necessary for eliciting these features (cf. Williams and Yang 1999) and a substantial degree of intrinsic work motivation in general (Deci and Ryan 1985, Akerlof and Kranton 2005). In contrast to extrinsic motivation, which is stimulated by material reward, intrinsic motivation means that a high level of task performance becomes a value in itself. If an individual employee can reach a high level, this is felt as a rewarding experience.³ Intrinsic work motivation therefore positively affects the employees' task performance. Even though the room for discretion given to them by necessity means that their effort (which may be largely unobservable anyway) cannot be controlled very effectively, their performance does not necessarily degrade – the very opposite of the assumption usually made in the analysis of the agency problem.

In the light of the dual problem of coordinating and motivating the members of a firm organization, the governance regime of cognitive leadership thus has several very attractive properties which affect, but do not result from, transaction cost differentials. These properties are particularly relevant in markets and industries in which entrepreneurial ventures demand a high level of creativity, problem solving engagement, and utilization of dispersed embodied knowledge. For such ventures (but not only for them) a firm organization operating under a cognitive leadership regime offers the entrepreneur a unique option to stimulate a self-determined, and nonetheless coordinated, highly intrinsically motivated performance among the employees. The opportunity is uniquely bound to the choice of the organizational form of the firm and may therefore be considered an important reason for why an entrepreneur creates a firm.

Under the organizational form of ordinary market contracts, a similar solution to the dual cognitive and motivational problem is not feasible. The reason is simply that all parties involved in

³ Both forms of motivation usually co-exist, of course, in employment relations. Where task performance is strongly driven by intrinsic motivation, however, an attempt to elicit more performance by material incentives (which appeal to extrinsic motivation) runs the risk of crowding out the existing intrinsic motivation (cf. Deci, Koestner and Ryan 1999, Osterloh and Frey 2000).

contracting are engaged in own businesses on the basis of their (separate) business conceptions. Market contractors are themselves entrepreneurs. While pursuing their own business conception, they cannot be made adopt someone else's conception as a cognitive frame. Organizing the division of labor on the basis of ordinary market contracts therefore requires precise and detailed specification of all properties and conditions of what other entrepreneurs are expected to deliver. If creative problem solving with unknown outcome is a substantial part of the task, an entrepreneur is not able to pre-specify properties and conditions in detail. An attempt to coordinate the contractors' conceptions with the own business conception is then likely to be difficult and a rather inefficient way to proceed. Moreover, because contractors do not share a common business conception, it is difficult, if not impossible, to make them perform at a high level of intrinsic motivation when it comes to adjusting properties and conditions of the market contracts. Their motivation to perform and deliver is usually an extrinsic one, contingent on material rewards from trade. This means that the effort undertaken is only instrumental for obtaining material reward. It may be reduced in an opportunistic way by exploiting post-contractual uncertainties, if this can be done without affecting the own material reward.

If an entrepreneur therefore decides to choose the organizational form of the firm, there are, of course, also other governance regimes with which the firm can be run. They do not, or not to the same extent, offer the unique advantages concerning cognitive coordination and motivation which a cognitive leadership regime can entail. Instead of trying to convey her business conception to the firm members, the entrepreneur can, for example, resort to a governance regime which figures prominently in transaction cost economics. This is a "monitoring" regime (Alchian and Demsetz 1972) under which the entrepreneur continuously gives ad hoc directives and monitors their execution. The directives specify in detail each activity assigned to the employees and the expected outcome. Such a governance regime leaves little, if any, room for the employees to exercise their own discretion. Effort and performance are correlated in this case and therefore easy to control. Yet, the tight regulation of all details – the opposite of self-determination – curbs intrinsic work motivation. As a consequence, the firm members' performance tends to be driven more or less exclusively by an extrinsic – usually pecuniarily fostered

– motivation (Kreps 1997). This means that, for the individual employee, a high level of task performance is not a rewarding experience in itself. Here, too, effort undertaken is instrumental only for obtaining material reward and is reduced, if this can be done without affecting the level of material reward.

For this governance regime, a tight monitoring of the employees' activities is therefore not only possible. It is indeed necessary to keep opportunism in check. Note, however, that because of its very nature, a monitoring regime does not suit all businesses. For example, if a business calls for a high level of initiative, creativity, and problem solving engagement on the part of the employees, this can hardly be achieved by detailed ad hoc directives (Williams and Yang 1999). Furthermore, such a governance regime is rather ineffective in tapping tacit knowledge embodied in the firm members (Langlois 1992, Nooteboom 1972, Osterloh and Frey 2000). *Ceteris paribus* it therefore tends to have a competitive disadvantage wherever such knowledge acquisition is essential, as in science-based industries (Witt and Zellner 2005). Last but not least, the entrepreneur would have to be omnipresent in the firm organization to carry out, at the expense of the proper entrepreneurial services, what is actually a managerial activity of giving directions and controlling. Usually, an elaborate hierarchy of managers is therefore built up.

III. Wrestling for Cognitive Leadership – Outcomes and Entrepreneurial Characteristics

An entrepreneur can control and coordinate the economic resources involved in her (re-) organization of production and trade via market contracts between her own venture and that of other entrepreneurs. Or she can command and coordinate them on the basis of employment contracts within her business venture which then takes the form of a multi-person firm. In the previous section it was argued that the choice between these alternatives – and hence the question of why firms exist – not only depends on the by now well understood transaction cost differentials connected with the alternatives. It also hinges on how the dual problem of entrepreneurship can best be solved. This is the problem of cognitively

coordinating the contracted resources on the entrepreneurial business conception and motivating them to pursue it. As explained, the organizational form of the firm offers a unique, and highly advantageous option for solving this problem. It is bound to the condition that the entrepreneur is capable of implementing a governance regime of cognitive leadership. However, whether or not an entrepreneur indeed strives for implementing this rather than some other regime is by no means certain. So is the outcome of the endeavor. Thus, several contingencies seem to be present which need to be considered now in more detail, among them the capabilities and personal characteristics of the entrepreneur.⁴

First, the question of empirical relevance of the different entrepreneurial regimes arises. In their longitudinal study of firm founding and firm growth in Silicon Valley, Baron, Burton and Hannan (1996, 1999) provide evidence that the governance regime in the investigated small, entrepreneurial start-up firms can be classified in different categories.⁵ The criteria they use are (i) the employees' major work motivation, (ii) the mode of coordination and control, and (iii) the standard for selecting staff. (Only the first two are also considered in the present paper.) on that basis four different regimes (called "employment models") are distinguished. Using the first two criteria, three of the authors' regimes ("Star", "Engineering", "Commitment") can be merged and identified with what is called here cognitive leadership. Together the cases, i.e. cognitive leadership regimes, represent 54% of the firms in the sample (Baron, Burton and Hannan 1999). Two of the authors' regimes ("Autocracy" and "Bureaucracy") can be merged and identified with what is called here the monitoring regime. It represents 10% of the founded firms in the sample. (One third of the firms could not be associated with any of the categories mentioned.)

⁴ Entrepreneurial studies often focus either on outcomes that entrepreneurs generate or on the characteristics of entrepreneurs, i.e. either on what entrepreneurs do or on what they are (cf. Gartner 1990). It seems plausible, however, that the outcomes are not independent of the capabilities and personal traits (Koppl and Minniti 2003), and these two aspects will therefore be linked here.

⁵ Their study is informed by the idea of an "imprinting" effect operating on the development of organizations that differs from the entrepreneurial perspective taken here. Nonetheless, many of the findings of their study seem to be compatible with, and, in fact, support, the hypotheses suggested in this paper. For details on the Stanford Project on Emerging Companies (SPEC) cf. http://www.gsb.stanford.edu/spec/research_process.html.

Second, the question of what makes an entrepreneur succeed with the governance regime she is trying to implement in the firm organization. In the case of cognitive leadership, the major challenge for the entrepreneur is to make the employees adopt her business conception as their own cognitive frame for pursuing the tasks assigned to them. The problem is that cognitive frames are not subject to intentional choice. For this reason, employees cannot be ordered to adopt a certain cognitive frame. Cognitive frames rather emerge in a complex, unconscious, spontaneous process under the influence of information processed earlier, not least socially contingent experience. Information obtained in communicating with others affects both memory content and the alerting of cognitive cues. This can have a modifying impact on the agents' prevailing cognitive frame. Indeed, the more frequent and intense their informal communication is, the more similarities can emerge in the interpretative frames of agents (Levine, Resnik and Higgins 1993).

An entrepreneur who wants to induce hired staff to adopt her business conception can try to instrumentalize the social contingency of individual cognitive frames. However, in the firm organization, the entrepreneur is just one source of such information, and she is often confined to formal, if not even rather anonymous, communication channels. Otherwise the major source of (often more emotion-laden) information can be informal communication among the firm members. With the means of formal communication alone – which the entrepreneur may be able to control – it is therefore difficult to make an impact. A more favorable outcome can be expected if the entrepreneur is able to be sufficiently present and persuasive in face-to-face interactions with the employees and can thus affect, or even dominate, the agenda of informal communication in the firm. Other firm members may, of course, also try to influence the agenda, often in a concealed way. Because of the influence of informal communication and the latent competition for dominating it, there is therefore always a chance that, even when trying hard, the entrepreneur fails to make the employees adopt her business conception as a cognitive frame for their task perception. In that case, rivaling frames can disseminate in the firm organization and undermine the entrepreneur's efforts to attain cognitive coordination.

But even if the entrepreneur has temporarily succeeded in cognitive leadership, to keep up such a situation in the firm organization requires a constant wrestling for influence on the agenda of informal communication and the firm members' motivation structure. In fact, the latter is also sensitive to social learning processes which are similar and connected to the agenda setting in informal communication. This is so, because the actions of others, their (non-) conformity with common standards, and the consequences they experience are frequently the objects of observation and communication. From the firm members' observation of, and communication about, the performance and motivation of other firm members, a common, group-specific, rule or model of behavior is likely to emerge (Bandura 1986, Chap.2, cf. also Aldrich 1999, Chap. 6 and Foss 2001). If it is broadly adopted in the firm, such a model fosters the individual's identification with the goals and standards of achievement of the firm organization and helps to cultivate a climate of intrinsic work motivation. ⁶

If, however, someone's opinion or even behavior deviates from the commonly approved model of behavior, it is likely to attract significant attention among the group members (Levine 1989). By observing the consequences of such deviations, the agents learn to re-assess their own behavior and motivation in the light of an alternative not previously considered. If the consequences are observed to be rewarding, this tends to encourage imitation. Observed unrewarding consequences tend to stiffen disapproval and inhibit imitation. Depending on the circumstances, observational learning can thus either strengthen or weaken the tacit, socially shared, constraints on what is individually perceived or considered as possible behavior (Bandura 1986, Chap.7). This explains why rules or models of behavior can break down or spontaneously be replaced by other models.

Obviously, both the cognitive frame which employees adopt for their decision making and the approved model of behavior that guides their work effort and motivation are directly relevant for the fate

⁶ Cf. Levine and Moreland (1991). The work motivation of employees is, in particular, positively affected by commonly approved models of behavior which emphasize task commitment, cooperative problem solving, fairness, and frankness, attitudes that also reduce intra-group frictions and individual frustration (Weiss 1978).

of the entrepreneurial venture. Failure to prevent rivaling cognitive frames and/or models of behavior from tacitly taking the lead in the firm's informal communication can threaten cognitive leadership. Organizational coherence and the firm's performance may suffer. Hence, to influence informal communications in a way that is advantageous to the propagation of her business conception is a significant part of the entrepreneurial service. However, entrepreneurs differ in their ability to provide this service depending on their personal characteristics and social skills. In leadership research, trait and attributes such as communicativeness, persuasiveness, and persistence, as well as fairness, credibility, appreciativeness have been found to be conducive to achieving the task.⁷ They are helpful both in establishing and strengthening a desirable model of behavior and in communicating a business conception.

The chances of making employees adopt a business conception as a cognitive frame also depend on the quality and appeal of the business conception. If an entrepreneurial business conception is too complicated or too simplistic, or if it is even unsound, it is difficult for the entrepreneur to propagate it successfully in the organization, whatever her skills are. If, in contrast, a business conception has obvious appeal – not the least in terms of the employees' criteria such as career options, remuneration, qualification enhancement, and working conditions – no great communicative skill may be necessary to make the employees adopt it. To conceive of a good business conception and to figure out how it can be made practical, entrepreneurial capabilities and personal characteristics other than those just mentioned are required. These are, for example, characteristics like alertness, power of imagination, creativity, and stringency. Immunity to cognitive fallacies which entrepreneurially minded agents often are susceptible

⁷ Cf. Zaccaro, Kemp and Bader (2004) for a survey. The relevant personal traits and characteristics are sometimes associated with charisma, and entrepreneurship is then linked with charismatic leadership, Langlois (1998), Alvarez and Barney (2005). Charismatic leaders have the capacity to transform and align their followers' goals, values, and attitudes by polarizing and propagating radical change (Shamir, House and Arthur 1993; Podsakoff, MacKenzie and Bommer 1996; Gardner and Avolio 1998). Charismatic leadership creates exceptional situations. Contrary to what Foss and Klein (2005) claim, charismatic leadership therefore differs from the much more mundane and less demanding cognitive leadership. None of the thirteen hypotheses suggested by Conger and Kanungo (1987) in their seminal paper on charismatic leadership in organizational settings is therefore required to hold for cognitive leadership.

to (Baron 1998) seems important too. Since a business conception always involves more or less educated guesses about technical and commercial feasibility and market demand, the personal experiences of the entrepreneur may also play a role. However, as with all creative acts, it is difficult to predict what precisely is the mix of factors that enables people to come up with what quality of business conceptions.

To what extent the discussed capabilities and personal characteristics of an entrepreneur indeed contribute to success or failure for the attempt to implement and maintain a cognitive leadership regime is, of course, an empirical question which cannot be assessed here. One conclusion can, however, be drawn. If, for whatever reasons, the attempt to exert cognitive leadership fails, this failure does not necessarily imply that the firm will go out of business. Nor does it, by necessity, mean that all advantages over markets as an organizational form are lost. (There may still be transaction cost advantages.) This is important to note because, as will be claimed in the next section, in the further development of the entrepreneurial firm, every successful entrepreneur may have limits to her capacity to maintain cognitive leadership within the organization. For this reason, the question of what happens when the limits are reached needs to be discussed in more detail. By considering the time dimension, such a discussion transcends the purely static approach underlying the question of why entrepreneurial firms exist.

IV. The Fate of the Entrepreneurial Firm – the Developmental View

In reality there is a huge variety of firm organizations differing in size, age, legal form, governance regimes etc. The discussion of the nature of “the” firm usually abstracts from this variety, and for many transaction costs oriented considerations an abstract, static representation of the firm is indeed sufficient. Not so in an approach that emphasizes the cognitive dimension of entrepreneurship and the unique advantages of an entrepreneurial firm in solving the dual problem of cognitive coordination and motivation. The reason is that changes in age and, most importantly, size of the firm organization can

have consequences for the cognitive leadership regime and the unique advantage it entails for the organizational form of the firm. In order to be able to discuss this, it is useful to switch from a static nature-of-the-firm perspective to what may be called a “developmental view on the firm” (Rathe and Witt 2001; cf. also van de Ven and Poole 1995 and Aldrich 1999, Chap. 7 and 8).

In such a view, it is natural to follow the (idealized) genesis of a firm organization and to start the analysis with an entrepreneurial start-up venture (cf. Witt 2000). This is usually a very small firm organization. The interactions between entrepreneur and employees can therefore take place on a face-to-face basis that is conducive to conveying the entrepreneurial business conception. Moreover, informal agenda setting effects and models of behavior can, in principle, be kept under the close scrutiny of the entrepreneur. All these are favorable conditions if the entrepreneur wants to implement a cognitive leadership regime. Assume that such an attempt is indeed made and that it is successful. In that case, the unique benefits of a highly motivated, coherently acting firm organization can be realized, particularly the positive effects on productivity and profitability. If this translates into a successful growth of the business, the firm organization is sooner or later likely to expand. Let us assume that the growth process continues over time so that the stage of the entrepreneurial start-up firm is eventually left behind.⁸

At a certain size of the organization, the increasing number of personnel can be expected to start straining the entrepreneur’s capacity to influence the social learning processes to a sufficient degree and to coordinate the firm members on her business conception. One reason is simply that, with a growing number of employees, the frequency of face-to-face interactions with the employees on average declines. Even for the most skilled entrepreneur there is an upper bound in the organization size where the conditions that had previously been favorable to exerting cognitive leadership disappear.⁹ Sooner or

⁸ The reasons for, and the conditions of, the growth of a firm are a complex issue of its own that does need not be investigated here. For inquiring into its impact, the growth performance of a firm may, for expository convenience, be taken as exogenous.

⁹ For their study of growing entrepreneurial start-up ventures in Silicon Valley, Hannan, Burton and Baron (1996, p. 509) write: “In interviews, founders of the firms in our study ... often

later, the growth accomplished by the success of the cognitive leadership regime therefore starts to undermine the very basis of its success. (Ultimately, this is the reason for why the successful governance structure of the successful start-up firm cannot be linearly expanded infinitely by simply multiplying business volume and the number of employees.) With the expansion of the firm organization continuing, a bifurcation point will thus be reached at some time which may be accompanied by signs of crisis (Clifford 1973). At that point, several alternative developments can branch off. They differ dramatically in their implications for the entrepreneur's role in the organization and the advantage of the organizational form.

One possible development follows if the entrepreneur ignores all signs of accompanying intra-organizational changes. Her ability to exert cognitive leadership may then indeed break down, with the consequence that employees are likely to increasingly switch to cognitive frames and corresponding models of behavior which compete with the entrepreneurial business conception. Instead of focusing on common organizational goals, the employees' attention may then easily be diverted to the pursuit of separate interests. With their intrinsic work motivation crumbling, and opportunistic low-effort strategies cropping up, a lack of organizational coherence, frictions, and declining work effort are pre-programmed. As a consequence, the firm organization is likely to perform in a significantly less efficient way with negative effects on profitability. The "muddling through" state of affairs that results by default in the organization from the lack of coordination and motivation tends to impede the firm's growth, but does not necessarily threaten the survival of the firm. (A monopolistic market position or scale economies feasible with the size of operations already attained may compensate for the degrading organizational performance, at least temporarily.)

A loss of the mutually contingent cognitive and motivational attitudes of the employees significant for a successful cognitive leadership regime is difficult, if not impossible, to reverse.

reported that a significant change in their organizations character can be traced to the period in which their work-force outgrew the company's largest meeting room."

Once the transition to a “muddling through” state of affairs has happened, the chances for an entrepreneur to return to cognitive leadership are low, even when the organization size is reduced again. The reason is that it is hard to undo the double incidence of a changed cognitive frame of the employees, admitting an opportunistic perspective, and the crowding out of their intrinsic motivation. If the degrading organizational performance does not immediately lead to the exit of the firm, the entrepreneur may seek to put up the firm for sale and takeover. Or she may be forced by investors or venture capitalists to install a CEO coming from outside and/or allow the firm becoming a public company. This often results in a change of the governance regime.¹⁰

Other developments may occur if the entrepreneur recognizes the accompanying change in the intra-organizational interactions. Different options to counter the detrimental consequences of an overstrained, and therefore failing, cognitive leadership regime may then be tried. One possible development is associated with an entrepreneurial strategy of replacing the cognitive leadership regime by a monitoring regime. This may also lead to the hiring of a CEO from outside who is expected to better carry out the transition in the organization than the founding entrepreneur herself. In this way, the problem of organizational incoherence may be tackled, and stagnation or even decline indeed be avoided. However, such a strategy requires building up a hierarchy of managers who give detailed directives to, and supervise the activities of, the employees. This amounts to a bureaucratization which will leave neither the cognitive frames nor the motivation of the employees unaffected. Even though they may be kept in check by the hierarchical monitoring, models of behavior less supportive of, and conceptions potentially conflicting with, the entrepreneur’s business conception are difficult to keep out in the organization. Managerial monitoring of the employees, based on reward and punishment, fosters

¹⁰ In the SPEC study already mentioned, hiring CEOs from outside, as well as the completion of an initial public offering, have been found to be frequently occurring events in the growth process of entrepreneurial start-up firms in Silicon Valley. The likelihood of these events was significantly higher, when the founding entrepreneurs had operated under a regime identified here with cognitive leadership regime (i.e. the “Star”, “Engineering” and “Commitment” models), cf. Hannan, Burton, and Baron (1996). As expected, these events frequently turned out to trigger the transition to more formalized governance regimes.

extrinsic work motivation. As mentioned, this tends to crowd out intrinsic motivation – with detrimental effects on the employees’ creativity, initiative, and problem solving engagement.

With such a bureaucratization strategy, the entrepreneur may be able to safeguard earlier investments in tangible and intangible assets (e.g. reputation and good will accumulated in the firm’s markets) and to continue reaping economies of scale that have already been attained with the firm’s size of operations. Yet, the overall effects on the firm organization’s coherence, efficiency, and performance are not clear. As mentioned, a monitoring regime is costly in terms of time resources and is not free of frictions resulting from a possible strategic maneuvering on the part of the managers. Moreover, in markets demanding creativity and/or a high level of problem solving capacity, firms with a monitoring regime tend to lack the necessary flexibility. The further fate of the firm will therefore depend not least on whether the mere size of the existing operations allows sufficient economies of scale to be generated to compensate for the structural disadvantage compared to competitors operating on the basis of a cognitive leadership regime.

Another possible development is associated with an entirely different strategy to counter the entrepreneur’s dwindling cognitive leadership capacity. The basic idea of this strategy is the following. If the emerging calamities of the formerly successful cognitive leadership regime are due to the fact that a single person is overstrained by providing the necessary entrepreneurial service once an organization has reached a certain size, is there a way to distribute the entrepreneurial task to several persons in such an organization? Obviously, such a strategy would amount to a kind of intra-organizational subdivision of entrepreneurship. It could be organized by creating sub-divisions in the corporate organization and by entrusting these divisions to entrepreneurially minded employees as separate spheres of influence and responsibility. The intention is that these “subordinate” entrepreneurs are given the opportunity to implement a decentralized cognitive leadership regime for these divisions.

While the dual coordination and motivation problem could thus be solved in parallel in each division, a new overarching coordination and motivation problem would, however, be created. To maintain a sufficient degree of cognitive coherence within the organization, the entrepreneur following such a strategy would have to make sure that she is able to make the peer group of entrepreneurial employees adopt her overarching business conception as their conceptions for the respective divisions. Moreover, the entrepreneur would have to find ways to solve the problem of a supportive model of behavior for the entrepreneurial peer group. This means that “cognitive leadership“ would again have to be exerted, now at the level of the entrepreneurial group. (As in other groups, observational learning may give rise to socially shared cognitive frames and models of behavior in this peer group too.)

For the superior entrepreneur who employs subordinate entrepreneurs it would therefore be crucial to be able to participate in, and have an impact on, the communications in that group. In a group of strong, entrepreneurially minded personalities, rivaling conceptions and deviating behaviors can never be excluded. All the more important it would be for the superior entrepreneur to possess personal characteristics and capabilities that are conducive to propagating both her overarching business conception and a suitable model of behavior among the subordinate entrepreneurs. In organizations that have grown very large, successful cognitive leadership may therefore indeed be exerted more easily, and more likely, by entrepreneurs' who possess charismatic features (Waldman and Yammarino 1999).

There are case studies in business history reporting on a successful transition to an intra-organizational subdivision of entrepreneurship in firms that have later been growing very large, while some of their competitors fell behind because of failure in making such a transition (Chandler 1977, Part V; McCraw 1999, Chap. 10, 11; Murmann 2003, Chap. 3). It may well be argued, therefore, that the cognitive dimension of entrepreneurship is not only an important factor contributing to the explanation of why and how entrepreneurial firms come into existence. It is obviously also a relevant aspect for a better understanding of the conditions under which entrepreneurial firms stay in existence and can grow large.

V. Conclusions

The choice between firms and market – and hence the question of why firms exist – has been discussed extensively in the literature. It has rarely been acknowledged, however, that this is an entrepreneurial choice – it is entrepreneurship, after all, that makes firms exist. As has been argued in this paper, it makes a difference if that choice is looked at from an entrepreneurial point of view. The reason is a usually neglected cognitive dimension of the problem that comes to the fore in such a perspective. New business opportunities have to be thought up by an entrepreneurial mind and to be developed into a workable business conception. Moreover, in order to organize resources into the realization of a business conception, the entrepreneur also has to communicate those parts of the business conception relevant to the resource owners to motivate them to contract and to perform adequately and to coordinate their activities.

Under the organizational form of ordinary market contracts, all involved parties are engaged in own businesses on the basis of their (separate) business conceptions. Entrepreneurs who pursue their own business conception cannot be made adopt someone else's conception as a cognitive frame. The motivation to perform and deliver is basically an extrinsic one, contingent on material rewards from trade. In contrast, employees can, under conditions explained in the paper, be coordinated on a socially shared, entrepreneurial business conception as a cognitive frame for their firm-related activities. These conditions – among them also a supportive model of employee behavior prevailing at the level of informal communication – have been identified with a governance regime of cognitive leadership. Such a regime leaves the employees room for own initiative and creative problem solving. It fosters their intrinsic motivation so that they tend to perform their tasks at a higher level of work effort despite the fact that performance is not tightly monitored. Cognitive leadership can thus entail unique benefits to the entrepreneur. They differ from transaction cost advantages and can be realized only by the organizational form of the firm.

Whether or not an entrepreneur is indeed able to implement a cognitive leadership regime so that the unique benefits materialize is, of course, by no means certain. The quality of the cognitive service an entrepreneur is able to provide obviously depends on the entrepreneur's capabilities and personal characteristics. So does, therefore, the outcome of the enterprise measured, e.g., in terms of profitability and growth potential. In the paper, personal features conducive to conceiving of business conceptions and personal features conducive to making the firm members adopt that conception as a socially shared frame have been mentioned. An entrepreneur who possesses favorable capabilities and personal characteristics that allow her to exert cognitive leadership may often be able to run a profitable, successfully growing firm. However, a continued expansion of the firm organization creates new problems which at some point in time overstrain the capacity to keep up the successful cognitive leadership regime of even the most skilled entrepreneur. As was explained, at that point, several alternative developments are possible which differ dramatically in their implications for the entrepreneur's role in the organization and the fate of the entrepreneurial firm.

The question of who makes firms exist, and for what reasons, thus leads to insights that differ from those usually derived in the debate on why firms exist. At the core of this approach is the problem of cognitive coordination that is different from those problems usually considered in transaction cost economics. The insights gained by exploring this problem do not invalidate the well known transaction cost arguments, but complement and, in some aspects, qualify them. It may be claimed, however, that it is the problem of cognitive coordination that is central for understanding why *entrepreneurial* firms exist.

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