Investor type and new-venture governance: cognition vs. interest alignment[*]

Christophe BONNET

Grenoble Ecole de Management

Peter WIRTZ

Professeur en sciences de gestion
Université de Lyon 2 (COACTIS)

LEG UMR Cnrs 5118 – FARGO

Centre de recherche en Finance, ARchitecture et Gouvernance des Organisations

Cahier du FARGO n° 1100704

Juillet 2010

Résumé : We study the specific rationale governing entrepreneur-investor relations in young ventures which raise equity capital from different investor types in pursuit of a strong growth strategy. Special emphasis is put on the governance process through which investors and entrepreneurs interact in a complex setting, where an entrepreneur faces at least two distinct investor types (business angels and venture capitalists). We do so in an effort to capture the specific role and impact of each for venture dynamics, trying to reach beyond static descriptions of entrepreneurs' and investors' characteristics. To this end, we set up a prospective case study (Bitektine, 2008). We actually use the case of a young growth venture in the process of raising external equity from angel investors and venture capitalists to test the relevance of two conflicting theories of venture governance. The study design has been set up to answer the following question: What is the dominant logic behind the governance of entrepreneur-investor interactions at an early stage in the growth process? Is it mainly driven by considerations of personal interest, as agency theory would have it, or does entrepreneurial and investor cognition play a dominant role?

Mots clés : business angel; venture capital; governance; agency theory; cognition; prospective case study.

JEL Classification : G300 ; G390.

Contact : Christophe BONNET ; Grenoble Ecole de Management, christophe.bonnet@grenoble-em.com; Peter WIRTZ, Université de Lyon 2, peter.wirtz.fcs@gmail.com.

[*] The present article is part of a larger research program on the dynamics of hypergrowth firms led by the COACTIS research center. Financial support from the French national research agency (ANR) is greatfully acknowledged.

Young entrepreneurial firms are an essential vector of economic growth and dynamism. Such ventures face especially strong challenges in managing the dynamics of growth (Hambrick and Crozier, 1985) and attempting to tackle specific strategic hurdles (Graebner and Eisenhardt, 2004). Part of the challenge is to gain access to and assemble various critical resources in an effort to fuel growth and get the venture on an expansion path. Frequently, resource needs come in the form of financial capital. When internal funding and the founder's personal wealth are insufficient to cover the financing needed for further growth, external investors, such as business angels or professional venture capitalists, may contribute critical resources in the form of equity finance. This brings about significant change in the ownership structure.

Bringing in new shareholders then raises the question of the nature and quality of the relationship between the different shareholder categories and the entrepreneur, in as much as the investors may exert significant influence over venture performance (Lindsay, 2004; Mason & Harrison, 2002; Wiltbank, 2005; Wiltbank *et al.*, 2009). The relationships between the entrepreneur and the new external investors are typically mediated by various governance mechanisms such as investor participation on corporate boards (Rosenstein *et al.* 1993; Sapienza *et al.*, 1996), terms of contract (Kaplan and Strömberg, 2004) and incentives linked to ownership structure (Bitler *et al.*, 2006).

The academic literature on the governance of entrepreneur-investor relations has mainly approached the issue from the perspective of agency theory (Daily *et al.*, 2003), according to which the corporate governance system essentially assumes a disciplinary role, improving performance through economizing on agency costs (Jensen and Meckling, 1976; van Osnabrugge, 2000; Bitler *et al.* 2006). More recently, empirically grounded studies have come to question such an exclusive focus on the disciplinary role of corporate governance, especially in the field of young entrepreneurial ventures. Graebner and Eisenhardt (2004), for instance, observed venture capitalists and business angels play a supportive strategic role in corporate governance, the latter working as a "syndicate" of cooperating peers rather than as a "monitor" of principal-agent relationships.

An alternative approach to corporate governance, borrowing from knowledge-based and behavioral theories, has begun to emerge and to present a major challenge to the dominant disciplinary approach. This alternative view may be qualified as cognitive, for it recognizes the potential role of governance in the process of strategy formulation and in the acquisition of managerial capabilities. Prominent examples of studies devoted to cognitive aspects of

governance are Forbes and Milliken (1999), Rindova (1999), Kor and Sundaramurthy (2008). According to these studies, the role played by the various actors involved in corporate governance and their impact on strategic outcomes and performance may be dependent on their specific cognitive background (experience, education, mindsets, decision-making heuristics ...) and interaction (learning, cognitive process ...).

Filatotchev and Wright (2005) promote the idea of the existence of a corporate governance life cycle, thereby suggesting that the specific role played by corporate governance in mediating entrepreneur-investor relationships may actually depend on a firm's stage of development. The present article is focused on the governance of young entrepreneurial ventures which raise external equity to finance further growth. Entrepreneurial firms may be assumed to face especially strong cognitive challenges, for at least three reasons: (1) entrepreneurs have been shown to present specific cognitive features affecting their decision-making process (Busenitz and Barney, 1997 ; Forbes, 1999; Krueger, 2003; Sarasvathy, 2001), (2) entrepreneurs' specific education and experience may lead to the discovery of business opportunies not evident to people with different mindsets (Shane, 2000), (3) entrepreneurs may lack the requisite managerial capabilities to exploit the perceived opportunities and sustain high levels of growth (Hambrick and Crozier, 1985; Hellmann and Puri, 2002; Wasserman, 2001). For all those reasons, the arrival of and interaction with specific investor types may have strong implications for the perception of the venture's best strategic opportunities and of the best way to capture and exploit them. Differences in cognition between entrepreneurs and investors may induce costs or increase value, depending on the precise nature of such differences and the unfolding dynamics of interaction. Hence costs may arise when mutually inconsistent mindsets lead to strong conflict over the best stratgic options that should be adopted, whereas value may emanate from the heterogenous experience and capabilities which certain investors bring to the venture, stimulating processes of organizational learning.

The present study has been designed to deepen our understanding of the specific logic governing entrepreneur-investor relations in young ventures that open their capital to different investor types in pursuit of a strong growth strategy. We are especially interested in the governance process through which investors and entrepreneurs interact in a complex setting, where an entrepreneur faces at least two different investor-types (e.g. business angels and venture capitalists). We do so in an effort to capture the specific role and impact of each for venture dynamics, trying to reach beyond static descriptions of entrepreneurs' and investors' characteristics (be it in terms of cognition or utility). To this end, we conduct a prospective

case study (Bitektine, 2008). In fact, case research is especially well suited to study complex phenomena of dynamic interaction (Yin, 1994). Specifically, we use the case of a young growth venture in the process of raising external equity from angel investors and venture capitalists to test two conflicting theories to venture governance at this specific lifecycle stage. So the central question we try to answer is the following: What is the dominant logic behind the governance of entrepreneur-investor interactions at an early stage in the growth process? Is it mainly driven by considerations of personal interest, as agency theory would have it, or does entrepreneurial and investor cognition play a dominant role?

The prospective case study design is conceived to overcome potential problems of *ex-post* bias. In fact, the study is conducted while the investment process is still unfolding. A first series of interwiews with the founders has been conducted before the first financing round. From the extant literature and an analysis of the first interviews, we are able to derive a set of case specific hypotheses for each of the two competing approaches to corporate governance. A second series of interviews with the entrepreneurs, the angel investors and the venture capitalists will be conducted some time after the financing round and should enable us to test the proposed hypotheses. The results will be reported in a follow-up paper.

1. Investor Relations in Entrepreneurial Finance: Beyond Agency Theory

Jensen and Meckling (1976) made the seminal contribution to positive agency theory which has become the dominant theoretical framework for analyzing shareholder-manager relationships. The starting point in Jensen and Meckling's analysis is an entrepreneurial firm, where the founder is the only shareholder and the manager at the same time. In this situation, agency conflicts are absent, because the entrepreneur completely internalizes the value impact of his decisions. Things change when the entrepreneur sells outside equity because such a scenario creates an incentive for the founder/manager to pursue his personal interests to the detriment of the new shareholders. Consequently, when a new shareholder enters, agency costs arise. Such an increase can however be reduced by putting in place the appropriate monitoring and incentive mechanisms. Hence, from the agency perspective, corporate governance follows an exclusively disciplinary orientation, functioning as a check on conflicting interests.

The question arises, however, why the entrepreneur should open up his venture to investors in the first place since this brings about agency costs which will be anticipated and priced by the potential external shareholders anyway. Jensen and Meckling's answer is in the recognition of

the entrepreneur's personal budget constraint. That is to say that the sale of outside equity may be the only means to capture certain value enhancing investment opportunities, simply by loosening the firm's budget constraint. Thus, outside equity brings the firm on a value enhancing "expansion path", as long as the incremental value generated from expansion exceeds the marginal agency costs induced by the decrease of the entrepreneur's ownership stake. The value created by an external shareholder, say a private equity firm, stems from the funds it contributes and its capacity of controlling managerial agency costs by devising the appropriate incentive and control mechanisms. In discussing the O.M. Scott LBO for instance, Baker and Wruck (1989) make a case for the private equity firm's ability to design governance mechanisms (remuneration design, management participation, board of director functioning, covenants) which help decrease agency costs. It should however be noted that, in the initial agency model, the outside shareholders play no role in constructing the investment opportunity set itself. The latter is given, and the role of outside shareholders is restricted to bringing in financial capital and to supporting the residual risk, while controlling the objective attributes of their investments by maintaining transparency on information flows. In such a model, outside shareholders' governance activity is restricted to monitoring and contract enforcement. Agency theory thus focuses on controlling costs of conflicting interests when information is asymmetrically distributed. Investors enhance value through governance by crafting the appropriate monitoring and incentive mechanisms. Monitoring reduces information asymmetry, whereas incentives align the entrepreneur's interests with those of external shareholders. Jensen (1993) considers the governance mechanisms developed by certain private equity firms as especially efficacious when it comes to economizing on agency costs.

Though this may be one important explanation for the success of certain ventures, in many cases, the success of entrepreneurial growth firms is not due to financial incentives and monitoring alone. In fact, one major shortcoming of agency theory lies in its implicit assumptions about the origin and the recognition of opportunities to create value. The origin of strategic opportunities and the recognition of their value creation potential are actually exogenous to the theory, and it is simply assumed that good (positive NPV) and bad (negative NPV) projects somehow exist. They are given by the environment, and to maximize value, it is important to have access to information about the good projects, to give incentives to the entrepreneur to choose the good ones and to make him expend optimal effort.

The strategic management literature however has a longstanding tradition in recognizing that making a competitive strategy is as much about cognition (Hambrick and Mason, 1984; Huff,

1990; Walsh, 1995), vision (Fransman, 1994; Witt, 1998), and difficult to imitate capabilities (Penrose, 1959; Teece, Pisano, Shuen, 1997), as it is about mere information. What an entrepreneur perceives as the best strategy depends on her specific mindset. The same goes for an investor. Mindsets are influenced by individual and collective learning processes, which may be highly specific and path dependent. Part of such learning is tacit in nature and thus difficult to communicate to others. One implication of the cognitive nature of strategy formulation is the fact that many value creation opportunities do not exist independently of the people who conceive them in specific organizational settings. The art of strategy is not simply about choosing the objectively best strategy in a predefined menu. Strategy is created in processes of individual and organizational learning (Nonaka and *al.*, 2001), which rely on capabilities that go beyond the control of conflicting interests.

Fransman (1994) illustrates the central importance of knowledge in creating and realizing the potential of corporate success. He actually draws a clear distinction between information, as it is present in agency theory, and knowledge, as employed in strategic management and evolutionary economics (Nelson and Winter, 1982). Information is in fact defined as objective data about states of the world and state-contingent outcomes. As such, it is a closed set. It may be asymmetrically distributed, but its transfer from one stakeholder to another is possible, albeit at a cost (monitoring costs). In such a context, an information's meaning is unambiguous. Things change when the precise meaning of any given information depends on peoples' mindsets. Thus, even if knowledge evolves with the acquisition of information, there is "loose coupling" between the two concepts, which is to say that the interpretation of any piece of information in terms of value creation is not self evident but depends on people's mental patterns at the time they receive the information. The latter may then have an impact on mental patterns and belief structures, but these change in a highly path-dependent way, so that the knowledge gained from new information is sometimes very different from one person to another, depending on education and personal experience. In fact, Fransman defines knowledge as dynamic mental constructs. So, in comparison to agency theory's conception of information, knowledge is an open set. It is created in an ongoing learning process, part of which is tacit (Nonaka and *al.*, 2001).

Beyond their privileged access to information in the above defined sense, top managers' specific knowledge structures can hence be crucial in an effort to create value and stimulate growth. In their work on upper echelons, Hambrick and Mason (1984) actually consider a firm's strategy to be a reflection of its top managers' cognitive base and values. Since there is only loose coupling between objective information and knowledge gained, some people

perceive opportunities for value creation and others do not, even if information is distributed symmetrically. In such a situation, monitoring and incentive alignment alone are insufficient to increase a firm's value and engage in the dynamics of growth. This is because information from the environment is perceived through the lens of an entrepreneur's specific mindset. The latter influences strategy formulation and, ultimately, a firm's performance (Hambrick and Mason, 1984).

One important implication is that there may be a conflict between an entrepreneur and his firm's investors about the best strategy to follow, independently of any problem of conflicting interests, and that cognition may hence influence the dynamics of governance. As Conner and Prahalad (1996) put it: "[...] truthful individuals honestly may disagree about the best present and future course of action for their business activities. Or, the parties may possess different mindsets generally. Discord fundamentally derives from personal knowledge that cannot be communicated fully to others at the time of the disagreement." (p. 483). Consequently, our understanding of entrepreneur-investor relations may gain from admitting the existence of cognitive (or knowledge) asymmetry, which is different in nature from mere information asymmetry.

Such cognitive asymmetry is likely to induce conflicts due to mutual misunderstanding among stakeholders (e.g. the entrepreneur and certain external shareholders). Such conflicts are not rooted in mutually inconsistent interests and thus cannot be tackled by the means of interest alignment alone, as traditional agency theory would have it. Their resolution depends on stakeholders' initial skills and knowledge, as well as on their willingness and capability to learn. Thus cognitive conflicts cause costs which may be labelled as cognitive costs.

The costs stemming from cognitive conflicts are different in nature from costs rooted in agency conflicts. They are related to the various efforts undertaken by stakeholders to overcome differences in the perception of opportunities, to convince others of the relevancy of their conceptions (e.g. an innovative business model), as well as to eventual losses of efficiency due to lasting differences in understanding. Table 1 sketches out different types of potential cognitive costs in comparison with the traditional agency costs.

Table 1 – *Agency costs and cognitive costs in entrepreneur-stakeholder relations*

Agency costs (Jensen and Meckling, 1976)	**Cognitive costs**
Monitoring aims at reducing information	Mentoring efforts undertaken by certain

asymmetry (e.g. through a well informed independent board of directors).	stakeholders, such as venture capitalists, may influence an entrepreneur's mindset and enable him to engage in relationships with different stakeholder groups (e.g. financial investors). Mentoring may take the form of serving as a "sounding board", giving strategic and financial advice, helping entrepreneurs to acquire new managerial capabilities ... It aims at reducing knowledge asymmetry.
Bonding is the activity whereby managers convey credible (and thus costly) signals that they will behave in accordance with external shareholders' interests.	Externalizing tacit knowledge (Nonaka *et al.*, 2001) consists of an entrepreneur's efforts to transform his tacit knowledge into explicit knowledge which can be communicated to external stakeholders, such as potential investors. The costs of externalization are different from bonding costs. The latter's role is to convince shareholders that the manager's interests are aligned with shareholder interests, whereas externalization of a partially tacit mindset is aimed at convincing (potential) stakeholders of the intrinsic quality of strategic projects.
Residual loss is due to the fact that information asymmetry can never be completely eliminated and that interest alignment is never perfect.	Cognitive heterogeneity persists because mindsets are specific and path-dependent and, thus, never perfectly aligned, in spite of mutual interaction. Thus, some degree of mutual misunderstanding may always persist.

Source: Wirtz (2010)

The above presentation of cognitive costs emanating from the relationship between entrepreneurs and external stakeholders, such as business angels and venture capitalists, shows that these costs are linked to learning processes that potentially lead to a transformation of strategic knowledge (which may reduce the gap between different mindsets) and to an acquisition of new managerial capabilities. It is however important to emphasize that cognitive conflict differs from traditional agency conflict in a fundamental way. In fact, agency conflict is always value reducing, and as long as the marginal cost of monitoring and bonding remains inferior to the marginal reduction in residual losses, the latter's minimization will maximize value. Not so with cognitive heterogeneity, which can actually be value enhancing (Forbes and Milliken, 1999; Hambrick *et al.*, 1996), in as much as it opens up new strategic perspectives and allows to sustain an ongoing process of learning and innovation. Consequently, the specific mindsets of external stakeholders, say business angels or venture

capitalists, different from the entrepreneur's own, not only generate cognitive cost, but may also contribute cognitive value by bringing in new perspectives and valuable experience. Depending on their specific cognition and the latter's relative match with the entrepreneur's mindset, investors may act in such a way as to enhance the dynamics of mutual learning and thus support strong growth. In this case, governance would actually increase entrepreneurial discretion, furthering the capabilities required to manage the dynamics of strong growth.

Young technology ventures evolve in a highly uncertain environment, where knowledge about the best strategic opportunities is especially ambiguous. This makes cognition potentially a highly relevant variable in entrepreneur-investor relations. So, one may wonder which approach to governance better suits high-growth entrepreneurial ventures when it comes to explaining the dynamic interaction between entrepreneurs and investors at an early stage in the process of growth. Is it the disciplinary approach rooted in agency theory and preoccupied with closely monitoring managerial discretion or is it rather the cognitive approach where investors use corporate governance to gain better understanding of entrepreneurial opportunity and as a lever to enhance strategic vision and managerial capability?

2. Business Angels, Venture Capitalists and Governance

The answer to the above question is most likely to depend on investor type, and may help understand specific configurations of investors at specific stages of venture growth. Two broad investor categories are especially important for entrepreneurial finance and have been shown to assume complementary roles (Harrison, Mason, 2000) when it comes to supporting venture growth: business angels and venture capitalists. What are their specific roles and contributions to the governance of young ventures? Empirical research has shown them to differ by their origin, previous experience and objectives. They tend to establish different types of contractual and informal relationships with venture founders. They assume complementary roles over the life cycle of young ventures, as BAs generally invest small amounts of money at early stages whereas venture capital funds invest larger amounts at the expansion stage. In certain cases, however, they do invest simultaneously in the same venture. It is to a deeper understanding of the theoretical underpinnings of the latter case that we have committed the present study.

In this section we first document major empirical differences between BA and VC characteristcs, as well as the specific investment and governance processes they typically

engage in. In a second step, we derive theoretical implications for the governance of young growth ventures by VCs and BAs from the two alternative frameworks: agency theory and the cognitive approach.

2.1. Empirical differences between BAs and VCs

The typical BA and VC each have specific characteristics

In the literature on entrepreneurial finance, BAs are described as "resembling more" to entrepreneurs than to VCs (Farrel, 1998), as being "closer" to entrepreneurs than VCs are (Kelly & Hay, 2003), as having an entrepreneurial orientation (Lindsay, 2004). BAs are predominantly actual or former entrepreneurs who invest their own money (Morrissette, 2007), whereas VCs are finance professionals who manage investors' money. Therefore BAs' knowledge base and cognitive process are close to entrepreneurs'. Due to their experience they generally have good knowledge of a specific technology, industrial sector or market, and they express a preference for investing in industries they know (Wright & *al.*, 1999; van Osnabrugge, 1999). VCs, although some of them may have technological or industrial experience or expertise, often have a more generalist background (MBA, consulting or financial experience).

With regard to cognitive process typical in entrepreneurial decision making, two important specificities emerge from the literature: intuition and effectuation. Entrepreneurial intuition is defined by Mitchell & Friga (2005) as "*the dynamic process by which entrepreneurial alertness cognitions interact with domain competence (e.g., culture, industry, specific circumstances, technology, etc.) to bring to consciousness an opportunity to create new value*." According to van Osnabrugge & Robinson (2000, *in* Morissette) BAs primarily assess the entrepreneur (*vs.* the business model) in their selection process and largely base their decisions on their own judgment and *gut feeling* rather than on extensive due diligence. The proper assessment of the entrepreneur's intuition hence plays a significant role. To the contrary, VCs use a more formal, extensive and analytical approach based on the analysis of entrepreneurs' references and past experience, of venture technology, of potential market and competition, and of financial projections (Wiltbank, 2005). This may be due to differences in cognitive ability and style between BAs and VCs, but also to the fact that VCs manage other people's money and need therefore to document and justify their decisions in order to show to their fund providers that they behave in a responsible and rational manner (van Osnabrugge, 2000).

Effectuation, or effectual logic, is a construct that aims at describing how entrepreneurs take strategic decisions in uncertain environments (Sarasvathy, 2001). Rather than using a predictive approach (i.e. trying to forecast future outcomes using detailed market studies, financial projections, etc.) in order to pre-determine precise opportunities, goals and expected returns, as VCs usually do, many entrepreneurs use an "effectual", non predictive, approach. This means that they do not try to first predict future outcomes and then match them with resources needed to attain predicted outcomes. Effectuators rather try to control (shape) outcomes (possible effects) based on their initial endowments with resources, strengths, social networks, and progressively manage to transform their environment as they go along thus creating new opportunities. According to Wiltbank & *al*. (2009), BAs use both predictive and non predictive (effectual) approaches in their investment decisions, albeit in different proportion. They suggest a moderate tendency toward one dominant approach over the other, some BAs being more predictive (much like formal venture capitalists), others more effectual (like the entrepreneurs of the ventures they invest in). Interestingly, BAs who emphasize a non predictive (effectual) approach experience a reduction in investment failures without a reduction in success rates.

BAs' investment objectives also appear to be closer to entrepreneurs' than those of VCs. BAs want to make money but they grant less importance than VCs to precise IRR and exit timing objectives, and they appear to have diverse non financial goals such as challenge, fun, helping to start a new company, that are as (or more) important for them as (than) financial goals (Farrel, 1998; Kelly & Hay, 2003; Morrissette, 2007). VCs set their objectives in financial terms only and need to control the exit as they are committed to create value for their fund providers in a limited time frame.

The respective characteristics of first-time entrepreneurs, BAs and VCs as they emerge from the entrepreneurship literature are summarized in table 2.

Table 2 – *Stylized characteristics of first-time entrepreneurs, business angels and venture capitalists*

	Entrepreneurs	**Business angels**	**Venture capitalists**
Knowledge base	technological, specific industrial sector and client market	technological, specific industrial sector and client market	financial, various industrial sectors (to a lesser extent)
Experience	former employee, entrepreneurial (recent)	entrepreneurial (strong)	as a professional VC sometimes with consulting or entrepreneurial

			experience
Cognitive process	intuititive effectual (non predictive)	intuitive predictive or non predictive (depends on BA)	quasi-rational predictive (consistent with a professional investment style)
Interests/utility	self achievement goodwill builders remuneration	return on investment goodwill builders challenge, fun, getting involved	return on investment over a predetermined horizon

BAs and VCs use different investment processes

The dynamics of venture capital investing can be represented as a five step process: deal sourcing, deal screening, deal evaluation, deal structuring, and post-investment activities (monitoring, exit) (Tyebjee & Bruno, 1984). In as far as it has an impact on managerial discretion, the investment process at large may be analyzed as an exercise in corporate governance. We present in table 3 a comparison of the respective procedures used by BAs ad VCs based on the literature on angel and venture capital investing.

The main distinctive features of BAs' investment process, compared to VCs, may be summarized as follows:

- BAs are typically more intuitive, less formal and analytical in deal selection and evaluation.
- They bring specific entrepreneurship experience and sector knowledge, and look for close interactions with management in order to contribute assistance, advice and personal contacts to the venture. VCs bring more extensive financial and general management experience.
- BAs negotiate less extensive contracts, relying more on their capacity to intervene as events unfold (effectuation), whereas formal VCs try to anticipate major risks as much as possible and consequently put more weight on clauses aiming at reducing agency risk.

Table 3 – *Investment processes featuring business angels and venture capitalists*

	Business angels	**Venture capitalists**
Deal sourcing • Sources	 Personal network BA clubs/networks	 Spontaneous deal flow Other VC or BA referral

• Deal flow	VC referral Small	Personal network Large
Deal screening • Deal type • Deal frequency and diversification	Small, early stage (limited resources) Low	Large, expansion stage High : extensive resources plus contract with investors (time constraint to invest, minimal diversification)
Deal evaluation • Due diligence process	Informal and partial Use intuition, own judgment, industry knowledge Use trustworthy referers	Formal and extensive Use own judgment and consultants Certification by BA or other VC
• Selection criteria	Entrepreneur (main criteria): fit, trust, competence Sector: link with experience and knowledge Financial : IRR, minimize risk of total loss Challenge/excitement/fun Possibility to "add value" to venture Social benefit (jobs creation…) Venture location (close)	Entrepreneur: competence, experience, completeness of TMT, similarity Sector: part of fund objectives Business model Financial : maximize IRR/gain
Deal structuring	Contracts enabling BA to be hands on as events unfold Tighter contracts on exit and gain sharing when BA is more experienced Tighter contracts when syndication with VC	Pro-active deal making Contracts enabling information, monitoring, exit control, gain sharing Contracts used as protection to perceived agency problems
Post-investment	*"Offering help"* Close interactions with management Brings entrepreneurial experience Fills competence gap in TMT Preparation and accreditation for VC investment in later stage Being hands on reduces negative exits Exit timing is not a key issue	*"Checking up on you"* Influence and control on management Active in shaping strategy/business model Brings financial experience May initiate changes in TMT to fill gaps Exit timing is essential (contract with investors)

Sources: Boeker and Wiltbank (2005); Farrel (1998); Fiet (1995); Kaplan and Strömberg (2004); Kelly and Hay (2003); Landström (1992); Mason and Harrison (2002); Van Osnabrugge (2000); Wiltbank (2005); Wright et *al. (1998).*

2.2. Theoretical implications for the respective roles of investors in venture governance

Informal and Formal Venture Finance in the Light of Agency Theory

According to agency theory, agency risks exist in young venture financing because of strong information asymmetry (on the quality of the project and of the entrepreneur) and of the existence of potential conflicts of interest between financial investors and entrepreneurs. They may be significant because most young ventures rely mainly on intangible assets and on the

goodwill, ethics and abilities of the entrepreneurial team (van Osnabrugge, 2000). These risks theoretically exist for BAs and VCs likewise. It is consequently assumed that investors mainly use governance mechanisms to reduce agency risks, through active monitoring and contractual clauses designed to enhance their control over the venture, to limit their downside risk, and to incentivize entrepreneurs to create value.

Agency theory has frequently been applied to the explanation of venture capital governance. Kaplan & Strömberg (2004) identify four types of agency risks that VCs may encounter in their investment process. Based on their findings and on similar studies, we match in table 4 specific governance mechanisms typically used by VCs with specific agency risks. Previous research indicates that VCs tend indeed to reinforce these governance mechanisms when they perceive increased agency risks (KS, 2004; Barney & *al*., 1994).

Table 4 – *Agency risks and governance mechanisms used by venture capitalists*

Agency risk	Governance mechanism
Investor does not know entrepreneur quality/ability (adverse selection problem; increases if entrepreneur has limited experience)	Due diligence on management Compensation dependant on performance (good entrepreneurs will be more willing to accept) Staged funding Liquidation claims and anti-dilution provisions Certification by business angel
Entrepreneur may not work hard enough to create value in the post-investment phase	Active monitoring Compensation dependant on performance Staged funding
Conflict between VC and entrepreneur in the post-investment phase	Contract giving board control to VC Forced exit clause (because exit timing is key for VC)
"Hold up" by entrepreneur (threatens to leave)	Vesting entrepreneurs' shares Non compete contracts

Mainly from Kaplan and Strömberg (2004); plus Barney et al. (1994), Madill et al. (2005).

Agency theory has also been used to study BAs' investment process, with results that feature some notable differences with VCs. BAs are not unaware of potential agency risks, but they typically manage them by different means. They seem to rely more on their own capacity to act, than on up-front contracts. *Vis-à-vis* the adverse selection problem, they rely significantly on their own judgment and on trusted referral sources more than on extensive due diligence (van Osnabrugge, 2000). They also seem to consider that they can manage agency risks through their level of involvement in the post-investment phase, by establishing a trusting and positive relationship with entrepreneurs (Landström, 1992). They work within a framework of "incomplete contracts" and, consequently, bother less about due diligence and contractual

detail than VCs, as they think they will be able to reach positive outcomes through their post-deal involvement (van Osnabrugge, 2000).

In a survey of 106 UK based BAs, Kelly & Hay (2003) have however identified five “non negotiable” clauses (i.e. that are almost always included by BAs in the contracts with entrepreneurs) : (i) veto rights over acquisitions/divestitures; (ii) prior approval for strategic plans and budgets; (iii) restrictions on management’s ability to issue share options; (iv) non compete contracts required from entrepreneurs upon termination of employment in the venture; and (v) restrictions on the ability to raise additional debt or equity finance. Interestingly, clauses frequently used by VCs are absent from this list, such as performance dependant compensation, liquidation claims and anti-dilution clauses, forced exit, vesting entrepreneurs shares. BAs seem to be more preoccupied with controlling strategic decisions post-investment than with the provision of financial incentives to entrepreneurs.

The above developments indicate that BAs and VCs may be concerned with agency risks likewise, albeit to different degrees. So agency theory would predict that BAs as well as formal VCs conduct the investment process by using various governance mechanisms primarily as a means to control for objective agency risks, at each stage of the process. Although the precise nature of the governance mechanisms employed may differ from one investor to another (Kaplan and Strömberg, 2004), their economic role is supposed to be identical: maximize shareholder value through strong financial discipline. Governance is supposed to grant investors access to objective information (not subjective knowledge in the above defined sense) and achieve interest alignement. Be it through formal due diligence or elaborate contractual arrangements (in the case of VCs) or through personal contact and hands-on monitoring (in the case of BAs), agency theory is focussed on interest alignment, not cognition. From this perspective, what is the respective role of BAs and VCs in the case of a co-investment in the same venture? On the one hand, the multiplication of different investors may intensify potential agency conflicts, because of the diversification of interests at stake. On the other hand, specific investor-types may have access to specific information, due to the specific governance mechanisms they have developed (*cf.* Jensen, 1993, referring to the governance mechanisms developed by private equity firms). So BAs and VCs might be considered to be complementary in terms of the specific information each is able to access (and certify), which should lead to a decrease in information asymmetry.

Business Angels and Venture Capitalists in a Cognitive Framework

The above quoted litterature on BAs and VCs indicates that these two investor categories typically have different cognitive features, be it in terms of knowledge gained from formal education and professional experience, or in terms of cognitive style and process (intuition and effectuation *vs.* prediction). This may induce a gap between investors' mindsets and those of entrepreneurs of varying magnitude at the time these different actors first come into contact. Bringing in different investor categories hence theoretically creates cognitive heterogeneity which is a potential source of cognitive conflict and cost. If the cognitive mismatch between a particular investor and the entrepreneur is too strong, the relationship may be interrupted rapidly, without any financing taking place, not because of an absence of objective information, but because of mutual misunderstanding. The cognitive distance between BAs having strong entrepreneurial experience and entrepreneurs should be smaller than beween VCs and entrepreneurs. Reduced cognitive distance may allow for an intuitive understanding of the intrinsic value of an entrepreneur's orginal project, without formal financial projections. Conversely, the typical VC's mental distance from entrepreneurs may be stronger than in the case of BAs, for reasons of differences in training and in the resulting specific modes of reasoning.

BAs with an entrepreneurial background present many similarities with entrepreneurs in terms of cognitive process and knowledge base. In fact, they often invest in industries they already know, which should facilitate mutual understanding. However, the similarity between BAs and entrepreneurs is not complete. Although having a lot in common, they still may have different mindsets, partially due to differences in their specific prior experience. We therefore anticipate cognitive cost between BAs and entrepreneurs to exist but to be moderate.

BAs who seek strong involvement and close interaction with entrepreneurs can thus share their entrepreneurial experience, provide advice and business services and fill the competence gap existing in the top management team of the new venture at a relatively low cognitive cost. We can expect this involvement to be a source of knowledge transfer to the entrepreneurial team. It can therefore be assumed that BA/entrepreneur interaction has the potential to produce cognitive value, particularly in the case of first time entrepreneurs, who may benefit more from the transfer of previous entrepreneurial experience by BAs.

The likelyhood of a cognitive gap between VCs and entrepreneurs is greater than between BAs and entrepreneurs, if we consider the fact that they generally work from a different knowledge base, have different prior experience, and specific cognitive processes. Cognitive conflict may be strong during the pre-investment phase, particularly if the VC adopts a rigid attitude in due-diligence and in contract negociation. For example, entrepreneurs may be

upset by (what they considers as) an excessive tendency towards the use of formal analysis, predictive approach (detailed action plans and financial forecasts), downside contractual protections for investors and forced exit clauses, simply because they do not share the same cognitive logic than VCs. We therefore anticipate that there may be relatively strong cognitive conflict between VCs and entrepreneurs. However this may be moderated by several factors:

- Cognitive conflict may diminish over time, even during the pre-investment phase, as it can be expected that mutual understanding and shared knowledge will develop in the process of interaction;
- Experienced VCs may be less rigid and more prone to understanding entrepreneurs' logic than young VCs, who need to establish a track record and who have a shorter experience of dealing with entrepreneurs. Entrepreneurs may also be more able to understand VCs' logic when they had previous opportunities to deal with them;
- In the case of a co-investment by BAs and VCs, BAs may help reduce the cognitive gap between VCs and entrepreneurs as they appear to be "in the middle", sharing cognitive characteristics with both, and being close to entrepreneurs (as peers) as well as to VCs (as co-investors). According to previous research, VCs view BAs' active involvement in the post-investment phase, and their ability to fill possible competence gaps in the entrepreneurial team, as major advantages of co-investing (Harrison and Mason, 2000).

It should be emphasized that particular entrepreneurs' and investors' respective mental features are not static, but can be expected to evolve in a complex process of interaction. Hence, the different actors' specific experience counts very much. It is thus possible that a VC compensates a lack of personal experience as an entrepreneur through his frequent contacts with the entrepreneurs he funds. VCs, BAs and entrepreneurs featuring a certain degree of cognitive heterogeneity at the outset learn in the process of interaction. When VCs and BAs coinvest in the same venture, they may be supposed to make complementary contributions, due to their heterogenous cognitive resources. It may thus be supposed that, early in the investment process, before any formal contracts are put in place, BAs play an especially strong cognitive role, in as much as they gain intuitive understanding of the entrepreneur's project, being able to translate the entrepreneurial idea into financial language. In fact, BAs can gain an intimate understanding of both worlds – the entrepreneurial and the financial – through their personal experience. They can thus play a helpful role early in the fundraising process, helping the entrepreneur to explain his venture's intrisic value at a low cognitive cost to professional investors, potentially willing to contribute funds. The VCs' cognitive role, different in nature from the BAs', can be supposed to increase after investment agreements

have been signed, as VCs have been reported to contribute managerial capabilities in a mentoring effort leading to a professionnalization of functional capabilities (Hellman and Puri, 2002).

Table 5 – *Relationships between first-time entrepreneurs and investor-types and their supposed impact on agency cost, cognitive cost and value*

<table>
<tr><th colspan="2"></th><th>Entrepreneurs</th><th>Business angels</th><th>Venture capitalists</th></tr>
<tr><td>Agency theory</td><td>Potential conflict of interests and agency costs</td><td colspan="3">- increases as the founders' relative ownership stake decreases (Jensen and Meckling, 1976; Bitler et al., 2006)
- increases with the number of different investors
- depends on investors' typical incentive and control mecanisms (Baker and Wruck, 1989; Jensen, 1993)</td></tr>
<tr><td rowspan="3">Cognitive approach to entrepreneur-investor relations</td><td rowspan="2">Potential cognitive cost</td><td>Moderate (because of mutually consistent entrepreneurial attitude and cognition; Murneiks et al., 2007)</td><td colspan="2">Moderate (because of BA's prior entrepreneurial experience and track record)</td></tr>
<tr><td colspan="3">- Potentially high at the outset (pre-money) for young and unexperienced VC (who requires track record), may decrease in the process of mutual interaction
- Lower for experienced VC (but still higher than for BA)</td></tr>
<tr><td>Potential cognitive value</td><td colspan="3">- potential transfer of entrepreneurial experience
- potential professionnalization of managerial capabilities (increases with VC experience, Gompers et al., 2006)</td></tr>
</table>

3. Comparing Agency Theory and the Cognitive Approach to Entrepreneurial Finance: A Prospective Case Study Design

Are the process of interaction between the new investors and the entrepreneurs and the governance system resulting from an effort to raise funds from angel investors and professional venture capitalists mainly caracterized by concerns for potential agency conflicts or do cognitive aspects prevail? We set out to further investigate this central question concerning the specifics of the governance of young high-growth ventures through an in-depth analysis of a relevant case example, using prospective case study (PCS) design (Bitektine, 2008). In fact, PCS design appears to be particularly well suited to test alternative theoretical frameworks in a dynamic context which is still unfolding. The prospective research design consists of a two-step process aimed at improving methodological rigor. In fact, one critique regularly adressed to traditional retrospective case studies concerns the risk

of bias from *ex-post* reasoning, where hypotheses are actually formulated when the case outcomes are already known. PCS design has been proposed as a possible answer to this concern. Under this setting, the researcher formulates case specific hypotheses derived from the conflicting theoretical frames, after a first contact with the field under investigation, but prior to the unfolding of the process[1] to be explained (step 1). The basic concern of this first step is to assure construct validity, by making an effort to confer a concrete meaning on theoretical concepts (such as agency conflict, cognitive asymmetry ...) in applying them to a real-world case. The result of this first step – the "baseline case" – consists of a series of case-specific hypotheses. Step 2 ultimately seeks to confront the case specific predictions from the baseline with the real dynamics unfolding in the case under study. It is accomplished by returning to the field at a predetermined time[2]. This way to proceed minimizes the risk of *ex post* reasoning. The present paper has been written as a result of step one and contains the baseline case only. Work on step 2 will shortly resume (after completion of the financing round) with a second series of field interviews, and the results shall be reported in a follow-up paper.

For our study, we have chosen a young growth venture (founding date: 2006) in the process of raising funds from several VCs and BAs to finance further growth. A contact was established and first interviews were conducted with the two co-founders in December 2009, in order to write up the baseline case. Each interview lasted about one hour and a half, was tape recorded and was transcribed. Business Wire has recently announced the successful conclusion of the financing round. Step 2 interviews with the co-founders, BAs and VCs are scheduled to take place starting end of June 2010..

The objective of the first step is to get familiar with the case's overall dynamics and with the caracteristics (especially in terms of their interests and cognitive features) of the different actors potentially concerned by the process of fund raising. This allows us to formulate a series of case specific hypotheses, concerning the respective roles of and the interactions between the different investors and the entrepreneurs during the negociation process leading to the conclusion of the financing round and the associated governance mechanisms.

To derive specific predictions for the baseline case from the conflicting theoretical frames (agency theory *vs.* the cognitive approach to corporate governance), we adapt the two-step procedure used by Bitektine (2008) to our own research setting. Bitektine first proposes three

[1] In our case, that is the fundraising process (extending from first contacts with investors to signing the agreement) during which investors and entrepreneurs interact to reach an agreement on financial resources to be raised and on governance mechanisms to be implemented.

[2] Completion of the financing round, in the present case.

general theoretical hypotheses and then applies them to the case by deriving a set of actor specific ("low-level") hypotheses.

The general hypotheses we propose for our research setting are the following:

H_0: The relational dynamics and outcomes (in terms of governance mechanisms to be implemented) of the fundraising process are independent of the different actors' specific cognitive features and process. They are influenced by considering potential conflicts of interest between the parties only.

Strong H_A: The relational dynamics and outcomes (in terms of governance mechanisms to be implemented) of the fundraising process can be predicted on the basis of the different actors' specific cognitive features, independently of any considerations for potentially conflicting interests.

Weak H_A: Only part of the relational dynamics and outcomes of the fundraising process can be predicted on the basis of the different actors' specific cognitive features. A combination of disciplinary and cognitive explanations is required to account for the relational dynamics and governance solutions of the fundraising process.

4. The Baseline Case

In this section, we give a brief descriptive overview of the case (4.1.) before deriving a series of actor specific ("lower-level") hypotheses (4.2.).

4.1. Case description

The following descriptive information was gathered from the first interviews conducted with the two co-founders of the company in December 2009. The interviews were semi-structured and aimed at obtaining an account of the venture's overall dynamics, from the initial idea until the first contacts with the different investors. The identity of the four business angels and the three venture capital firms was disclosed by the co-founders, and detailed investor profiles were obtained for most investors from a search on the internet.

The company (EnBaVen) is a young and fast growing venture developing software for the design of electronic components with actual and potential clients being industrialists in the high-tech sector. It was created in 2006. The two founders are **first-time entrepreneurs**. Their primary competency is technological with a strong engeneering background. This

concerns both their formal training and their work experience prior to the venture's creation. Before quitting their jobs at major high-tech firms in the computer industry and founding the venture, they had already anticipated becoming independent entrepreneurs for quite some time. Their attitude can thus be described as entrepreneurial, but their experience as entrepreneurs is still very young. The prior work experience of one of the founders has led him to develop ideas about the existence of a market for a new technological application, that was still lacking but would have facilitated his own work. The founders' knowledge base can hence be characterized as primarily technology- and market-based. The venture is presently at a stage where the prototype has been developed and successfully tested. The application has been sold to the first (big) clients (during 2008) and sales grow fast (three-digit sales growth between 2008 and 2009). Potential investors have recently been contacted, the challenge currently being to intensify commercial efforts and to expand the client-base steadily for the application to become a standard of the industry at an international level. This commercial development and the necessity of sustaining a strong effort in research and development require new funding. It is with this concern in mind that the founders have recently approached financial investors. After various contacts, the encounter with an angel investor (Angel 1) has proved to be particularly conclusive. This investor is, in fact, a former entrepreneur himself, who, after working for several years in a software company, successfully founded and managed his own venture and has acquired a strong entrepreneurial experience in the process. He created his own company – an editor of software solutions for high-tech industrial clients – in 1999. The latter experienced strong growth (annual sales growth between 50% and 100%), which was funded through several financing rounds with venture capitalists. He successfully sold his capital stake to an American competitor in 2007. Other investors are planned to contribute as well: three more business angels and three venture capitalists. One of the angels (Angel 2) is a US-based French who was formerly a co-founder of the Angel-1-venture. He is responsible for the development of the latter's American business. Angel 3 is also a successful former entrepreneur, although from a totally different field. Having a doctor's degree in pharmacy, and after several years of work experience in the field, he created a biotech venture in 1999, which he was able to sell in 2007 to an international competitor. Angel 4 is a business-school teacher and works as a consultant in the area of entrepreneurship and finance.

Capitalist 1 is a local venture capital firm which was created 30 years ago at the initiative of regional public bodies. Its CEO is a former business-school teacher who had formerly taught in the fields of finance and entrepreneuship for about a decade. This relatively small VC firm

(17 million euros invested, funded by a mix of public sector and private investors) is specialized in investing in early-stage innovative start-ups based in the region. The contact for the EnBaVen investment is the CEO himself. Capitalist 2 is one of the France's very first independent venture capital firms. It thus has a long experience in the field. Though based in France, Capitalist 2 works on a European scale and has an American subsidiary, created 20 years ago. 58% of investments are early stage. Total investments represent 132 million euros (76% of which in the IT industry, the remainder being invested in the life sciences). The manager in charge of the EnBaVen investment has a French business school degree and joined the firm in 2002.

Capitalist 3 is the private-equity subsidiary of a French bank.

With respect to investor characteristics, the above description indicates a certain degree of heterogeneity in personal trajectories, be it in terms of formal education or of professional work experience. This can be supposed to imply significant differences at the level of the individual knowledge- and competence-base (industry specific, financial, entrepreneurial know-how...), as well as in terms of cognitive style (intuition, prediction...). From a cognitive perspective, this may lead certain investors to play specific roles at different stages in the process of venture governance.

4.2. Actor-specific predictions concerning the fundraising process

Table 6 reports the actor-specific hypotheses for the EnBaVen case derived from the alternative theoretical frames.

Table 6 – *Actor-specific predictions concerning the governance process at EnBaVen*

	H_0 (disciplinary approach)	Strong H_A (cognitive approach)	Weak H_A (combined approach)
Entrepreneurs	During the negociation process, the entrepreneurs are exclusively concerned with signalling their integrity and making credible commitments to attract funds at a low cost of capital (**bonding**).	Entrepreneurs undertake considerable effort to externalize their tacit knowledge to be partially shared by investors. This effort is more intense in direction of VCs than vis-à-vis BAs with past experience close to their own. (**externalizing**)	Any combination of the beforementioned.

BA	Early on in the process, BAs are preoccupied with ascertaining the personal integrity and and technical competence of the entrepreneurs as a means to reduce the risk of adverse selection. At the time of closing, they insist on the possibility of personal intervention after the deal (e.g. through board representation) in order to be able to influence risk of moral hazard. (**monitoring**)	When BAs' personal experience and knowledge-base is close to the entrepreneurs' (especially Angel 1), they can be instrumental in helping entrepreneurs externalize part of their tacit knowledge (**externalizing**). BAs' with significant entrepreneurial experience of their own may also engage in significant **mentoring** activity, starting early on in the process. Such mentoring concerns the proper communication with the professional investors, the management of the entrepreneurial process, as well as the strategic orientation (growth, internationalization ...).	
VC	VCs are preoccupied with the entrepreneurs potentially hiding significant information. At an early stage of the negociation process, significant weight will thus be put on thorough due diligence. At the conclusion of the agreement, VCs will insist on fixing a requirement for regular financial disclosure and on putting in place incentive mechanisms to motivate entrepreneurs to expand optimal effort. (**monitoring**)	VCs essentially place their hope concerning the value creation potential in their post-deal ability to professionalize certain managerial functions and to act as a sounding board (through active board representation for instance) (**mentoring**).	

Table 6 contains specific hypotheses for each of the three generic actors participating in EnBaVen's fundraising process. Concering investors, it is possible to be even more specific by breaking the investor categories down to reflect the potential role of individual actors. This can be illustrated through the example of two of the BAs (Angel 1 and Angel 3). Angel 1 is actually a former entrepreneur himself who successfully started, managed and, finally, sold his own business in what can be considered to be roughly the same industrial sector as EnBaVen's. So his knowledge base in terms of market dynamics, as well as his

entrepreneurial approach can be supposed to translate into a relative cognitive closeness with the two founders. Angel 3 is also a successful former entrepreneur, but from a very different industrial background. Consequently, though his entrepreneurial orientation may make him close to EnBaVen's founders in terms of cognitive process, the initial knowledge base is quite different. These differences between the two BAs can be supposed to make them play different roles during the fundraising process. Angel 1's role should be especially important, from a disciplinary as well as from a cognitive perspective. The former perspective indicates that he can play a valuable role in the certification of the venture's objective quality (reduce adverse selection risks) to VCs because of his informational advantage with respect to the industry. Having himself a strong track record in the field, VC's may appreciate his capacity to judge if the founders' capabilities and work effort correspond to industry standards, thus reducing information asymmetry. Being from a different industry, the role of Angel 3 in managing adverse selection should be less prominent.

From the cognitive perspective, the role played by Angel 1 in the fundraising process is potentially double: (1) with an intimate understanding of his industry's market dynamics, he can intuitively perceive the potential of innovative value creation opportunities and help translate this perception to other investor types (externalization of tacit knowledge); (2) he can also engage in mentoring the founders, speeding up their acquisition of the requisite capabilities in managing the entrepreneurial process. In contrast, BA 3 may also contribute at the second level (mentoring), but not at the first (externalization), appreciating opportunities as they are translated by Angel 1.

Conclusion

This article seeks to make a contribution to an understanding of the dominant logic governing entrepreneur-investor relations when a young high growth venture wishes to attract resources from business angels and venture capitalists to fuel further growth. Two theoretical frames – agency theory and the cognitive approach to governance – are briefly reviewed as alternative explanations for the dynamics of entrepreneur-investor interaction in a multiple-investor setting. Fieldwork on a young high-technology venture whose founders negociate funding from four BAs and three VCs is ultimately intended to help ascertain the relevance of the cognitive approach to governance *vs.* the disciplinary approach at an early lifecycle stage. At its current stage, preliminary case analysis has yielded case-specific hypotheses for each theoretical perspective. Implementing prospective case-study design, these competing

hypotheses – formulated at a very early stage in the fund-raising process – will be confronted with qualitative data to be gained from a second visit to the field, upon completion of the financing agreement.

To be continued ...

Next episode: The Investment Process Unfolding

References

Baker G. P. and Wruck K. H. (1989), "Organizational Changes and Value Creation in Leveraged Buyouts: The Case of the O. M. Scott & Sons Company", *Journal of Financial Economics* 25: 163-190.

Bitektine A. (2008), "Prospective Case Study Design: Qualitative Method for Deductive Theory Testing", *Organizational Research Methods*, vol. 11, n° 1, p. 160-180.

Bitler, M.P., Moskowitz, T.J. and Vissing-Jørgensen, A. (2006), "Why Do Entrepreneurs Hold Large Ownership Shares? Testing Agency Theory Using Entrepreneur Effort and Wealth", working paper, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=352480, January.

Boeker W. and Wiltbank R. (2005), "New Venture Evolution and Managerial Capabilities", *Organization Science*, vol. 16, n° 2, p. 123-133.

Busenitz, L. and Barney, J. (1997), "Differences between Entrepreneurs and Managers in Large Organizations: Biases and Heuristics in Strategic Decision Making", *Journal of Business Venturing*, 12: 9-30.

Conner K.R. and Prahalad C.K. (1996), "A Resource-based Theory of the Firm: Knowledge Versus Opportunism", *Organization Science* 7 (5), September-October: 477-501.

Daily C., Dalton D. & Cannella A. (2003), "Corporate governance: decades of dialogue and data", *Academy of Management Review*, 28 (3): 371-382.

Farrel E. (1998), "Informal Venture Capital Investment in Atlantic Canada: a Representative view of 'Angels'", Report submitted to Atlantic Canada Opportunities Agency, February 1998.

Fiet J. (1995), "Risk Avoidance Strategies in Venture Capital Markets", *Journal of Management Studies*, vol. 32, n° 4, p. 551-574

Filatotchev I. & Wright M., eds. (2005), *The Life Cycle of Corporate Governance*, Edward Elgar.

Forbes D. (1999), “Cognitive Approaches to New Venture Creation”, *International Journal of Management Review*, 1: 415-439.

Forbes D. & Milliken F. (1999), “Cognition and Corporate Governance: Understanding Boards of Directors as Strategic Decision Making Groups”, *Academy of Management Review*, 24 (3): 489-505.

Fransman M. (1994), “Information, Knowledge, Vision and Theories of the Firm”, *Industrial and Corporate Change* 3 (3): 713-757.

Gorman M. and Sahlman W. (1989), “What do Venture Capitalists do?”, *Journal of Business Venturing*, vol. 4, p. 231-248.

Graebner M. and Eisenhardt K. (2004), “The Seller’s Side of the Story: Acquisition as Courtship and Governance as Syndicate in Entrepreneurial Firms”, *Administrative Science Quarterly*, vol. 49, p. 366-403.

Hambrick D.C., Cho T.S., Chen M. (1996), “The Influence of Top Management Heterogeneity on Firm’s Competitive Moves”, *Administrative Science Quarterly*, vol. 41, n° 4, p. 659-684.

Hambrick D. & Crozier L. (1985), “Stumblers and stars in the management of rapid growth”, *Journal of Business Venturing*, 1: 31-45.

Hambrick D.C. and Mason P.A. (1984), “Upper Echelons : the Organization as a Reflection of Its Top Managers”, *Academy of Management Review*, 9: 193-206.

Harrison R. and Mason C. (2000), “Venture Capital Market Complementarities: the Links between Business Angels and Venture Capital Funds in the United Kingdom”, *Venture Capital*, vol. 2, n° 3, p. 223-242.

Hellmann T. and Puri M. (2002), “Venture Capital and the Professionalization of Start-Up Firms: Empirical Evidence”, *Journal of Finance* LVII (1): 169-197.

Huff A. (1990), *Mapping Strategic Thought*, Wiley.

Jensen M. (1993), “The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems”, *Journal of Finance* 48 (3): 831-880.

Jensen, M. and Meckling, W. (1976), “Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure”, *Journal of Financial Economics* 3: 78-133.

Kaplan S. and Strömberg P. (2004), “Caracteristics, Contracts, and Actions: Evidence from Venture Capitalist Analyses”, *Journal of Finance*, vol. LIX, n° 5, p. 2177-2210.

Kelly P. and Hay M. (2003), “Business Angels Contracts: the Influence of Context”, *Venture Capital*, vol. 5, n° 4, p. 287-312.

Kor Y. & Sundaramurthy C. (2008), "Experience-Based Human Capital and Social Capital of Outside Directors", *Journal of Management*, DOI: 10.1177/0149206308321551.

Krueger N. (2003), "The Cognitive Psychology of Entrepreneurship", *in* Z. Acs and D. Audretsch, eds., *Handbook of Entrepreneurship Research*, Kluwer: 105-140.

Landström H., (1992), "The Relationship Between Private Investors and Small Firms: an Agency Theory Approach", *Entrepreneurship and Regional Development*, vol. 4, p. 199-223.

Lindsay N. (2004), "Do Business Angels Have an Entrepreneurial Orientation?", *Venture Capital*, vol. 6, n° 2/3, p. 197-210.

Madill J., Haines G., Riding A. (2005), "The Role of Angels in Technology SMEs: A link to Venture Capital", *Venture Capital*, vol. 7, n° 2, p. 107-129.

Mason C., Harrison R. (2002), "Is It Worth It? The Rates of Return from Informal Venture Capital Investments", *Journal of Business Venturing*, vol. 17, p. 211-236.

Mitchell J., Friga P., Mitchell R. (2005), "Untangling the Intuition Mess: Intuition as a Construct in Entrepreneurship Research", *Entrepreneurship Theory and Practice*, vol. 29, n° 6, p. 653-679

Morrissette S. (2007), "A Profile of Angel Investors", *The Journal of Private Equity*, Summer 2007, p. 52-66.

Nelson R.R. and Winter S.G. (1982), *An Evolutionary Theory of Economic Change*, Harvard University Press.

Nonaka I., Toyama R. and Byosière P. (2001), "A Theory of Organizational Knowledge Creation: Understanding the Dynamic Process of Creating Knowledge", *in* M. Dierkes, A. Berthoin-Antal, J. Child and I. Nonaka, *Handbook of Organizational Learning and Knowledge*, Oxford University Press, 491-517.

Penrose E. G. (1959), *The Theory of the Growth of the Firm*, Blackwell.

Rindova V. (1999), "What corporate boards have to do with strategy: A cognitive perspective", *Journal of Management Studies*, 36 (7): 953-975.

Rosenstein J., Bruno A., Bygrave W. & Taylor N. (1993), "The CEO, venture capitalists, and the board", *Journal of Business Venturing*, 8: 99-113.

Sapienza H., Manigart S. & Vermeir W. (1996), "Venture capitalist governance and value added in four countries", *Journal of Business Venturing*, 11: 439-469.

Sarasvathy S. (2001), "Causation and Effectuation: Toward a Theoretical Shift from Economic Inevitability to Entrepreneurial Contingency", *Academy of Management Review*, vol. 26, n° 2, p. 243-263.

Shane S. (2000), “Prior Knowledge and the Discovery of Entrepreneurial Opportunities”, *Organization Science*, vol. 11, n° 4, p. 448-469.

Teece D. J., Pisano G. and Shuen A. (1997), “Dynamic Capabilities and Strategic Management”, *Strategic Management Journal* 18 (7): 509-533.

Van Osnabrugge M. (2000), “A Comparison of Business Angel and Venture Capitalist Investment Procedures: an Agency-Theory Based Analysis”, *Venture Capital*, vol. 2, n° 2, p. 91-109.

Walsh J. (1995), “Managerial and Organizational Cognition: Notes from a Trip Down Memory Lane”, *Organization Science*, 6: 280-321.

Wasserman N. (2001), “Founder-CEO succession and the paradox of entrepreneurial success”, Working paper, Harvard NOM Research Paper n° 01-02, Harvard Business School.

Wiltbank R. (2005), “Investment Practices and Outcomes of Informal Venture Investors”, *Venture Capital*, vol. 7, n° 4, p. 343-357.

Wiltbank R., Read S., Dew N., Sarasvathy S. (2009), “Prediction and Control under Uncertainty: Outcomes in Angel Investing”, *Journal of Business Venturing*, vol. 24, p. 116-133.

Wirtz P. (2010), “Beyond Agency Theory: Value Creation and the Role of Cognition in the Relationship between Entrepreneurs and Venture Capitalists”, *in* R. Yazdipour, *Advances in Entrepreneurial Finance*, Springer, *forthcoming*.

Witt U. (1998), “Imagination and Leadership: The Neglected Dimension of an Evolutionary Theory of the Firm”, *Journal of Economic Behavior & Organization*, 35: 161-177.

Wright M., Westhead P., Sohl J. (1998), “Editors’ Introduction: Habitual Entrepreneurs and Angel Investors”, *Entrepreneurship Theory and Practice*, vol. 22, n° 4, p. 5-21.

Yin R. (1994), *Case Study Research: Design and Methods*, 2nd edition, Sage.